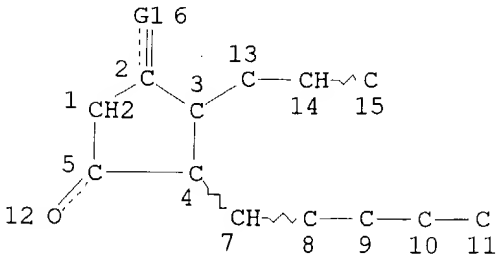
Stockton
09/516194

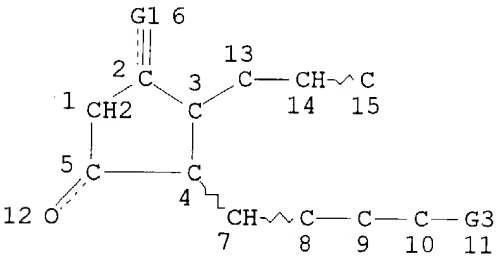
(FILE 'REGISTRY' ENTERED AT 15:41:08 ON 15 NOV 2004)
L1 STR

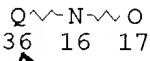


VAR G1=CH2/O
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

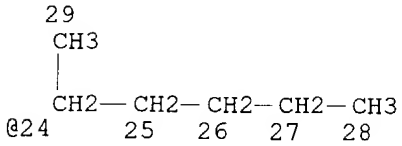
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

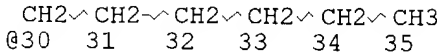
STEREO ATTRIBUTES: NONE
L2 5034 SEA FILE=REGISTRY SSS FUL L1
L16 STR





Any element other than carbon





VAR G1=CH2/O
VAR G3=ET/I-BU/N-BU/30/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE
L17 46 SEA FILE=REGISTRY SUB=L2 SSS FUL L16

100.0% PROCESSED 68 ITERATIONS 46 ANSWERS

Searcher : Shears 571-272-2528

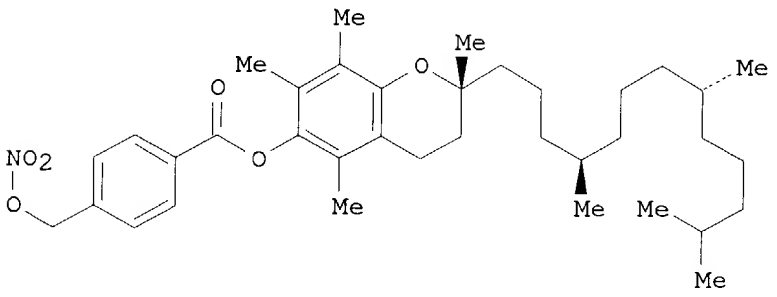
SEARCH TIME: 00.00.01

FILE 'CAPLUS' ENTERED AT 16:06:48 ON 15 NOV 2004
L24 20 S L17

L24 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:652131 CAPLUS
DOCUMENT NUMBER: 139:214237
TITLE: Preparation of nitrate prodrugs able to release nitric oxide in a controlled and selective way and their use for prevention and treatment of inflammatory, ischemic and proliferative diseases
INVENTOR(S): Scaramuzzino, Giovanni
PATENT ASSIGNEE(S): Italy
SOURCE: Eur. Pat. Appl., 313 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1336602	A1	20030820	EP 2002-425075	20020213
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			EP 2002-425075	20020213

GI



II

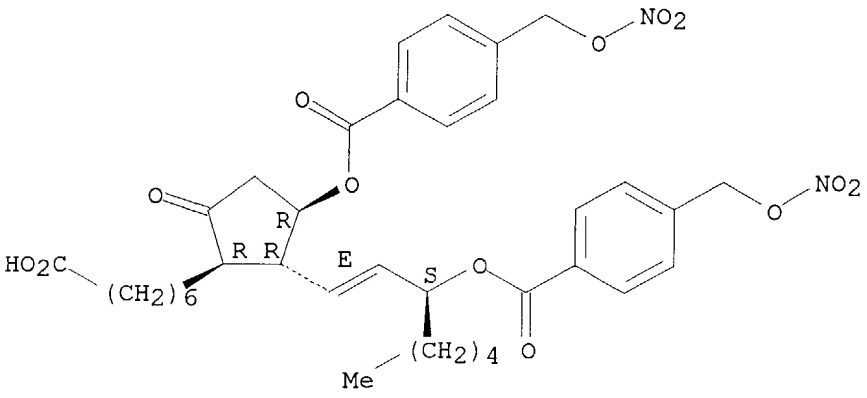
AB New pharmaceutical compds. of general formula F-(X)q (I) [q = 1-5, preferably 1; F is chosen among drugs such as δ-tocopherol, clidanac, diethylhomospermine, glucosamine, thymocartin, vofopitant, etc.; X is chosen among 4 groups M, T, V, and Y where M = ONO2, nitrate salt, nitrite ester, ONO, thoinitrite, SNO, etc., T = OR1-M, OR1OR1-M, SR1NR2R1-M, NR2R1-M, NR2R1SR1-M, etc., R1 = saturated or unsatd., linear or branched alkylene, having 1 to 21 carbon atoms or a saturated or unsatd., optionally heterosubstituted or branched cycloalkylene, having 3 to 7 carbon atoms or an optionally heterosubstituted arylene having 3 to 7 carbon atoms; R2 = H, saturated or unsatd., linear or branched 1-21 carbon atom alkyl, saturated or unsatd. optionally heterosubstituted or branched
3-7

carbon cycloalkyl, optionally heterosubstituted 3-7 carbon aryl; R1, R2 = OH, SH, F, Cl, Br, OPO3H2, CO2H, etc.; bond between F and T = carboxylic ester, carboxylic amide, glycoside, azo, thioester, sulfonic ester, etc.; V = Z-M2, OZ-M2, NR2Z-M2, R1Z-M2, OR1-M2, OR1Z-M2, M2 = M, R1-M, OR1-M, SR1-M, NR2R1-M; ZM2 = COCH2CH(M2)CH2N+Me3, COCH2CH2COM2, COCH(NHR2)CH2M2, etc.; Y = 4-COC6H4CH2ONO2, O(CH2)4ONO2, COCH(NH2)CH2ONO2, 3-OC6H4CH2ONO2, etc.] were prepared For example, α-tocopherol reacted with 4-HO2CC6H4CH2ONO2 to give the nitroxymethyl derivative II. The compds. of general formula I are nitrate prodrugs which can release nitric oxide in vivo in a controlled and selective way and without hypotensive side effects and for this reason they are useful for the preparation of medicines for prevention and treatment of inflammatory, ischemic, degenerative and proliferative diseases of musculoskeletal, tegumental, respiratory, gastrointestinal, genito-urinary and central nervous systems.

IT **586349-98-6P 586388-42-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of nitrate prodrugs for treating or preventing inflammatory, ischemic, degenerative, and proliferative diseases)

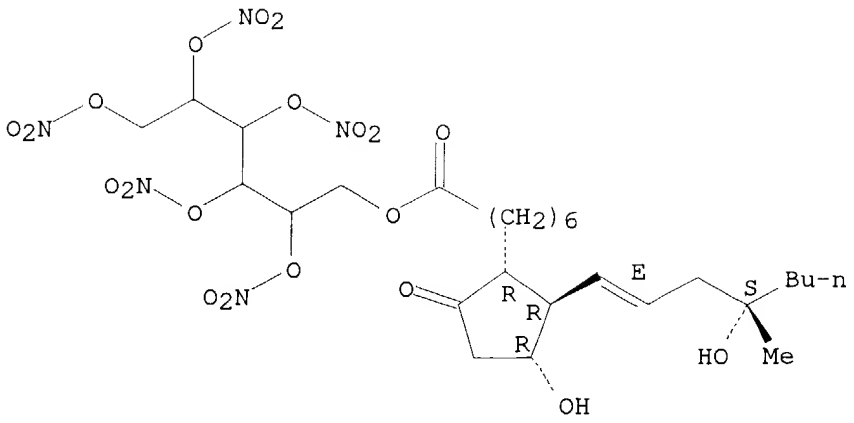
RN 586349-98-6 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis[[4-[(nitrooxy)methyl]benzoyl]oxy]-9-oxo-, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 586388-42-3 CAPLUS
CN Prost-13-en-1-oic acid, 11,16-dihydroxy-16-methyl-9-oxo-, ester with hexitol 1,2,3,4,5-pentanitrate, (11α,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



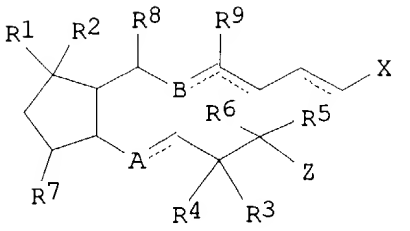
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:628113 CAPLUS
DOCUMENT NUMBER: 133:222496
TITLE: Nitrosated and nitrosylated prostaglandins, compositions and methods of use
INVENTOR(S): Garvey, David S.; Gaston, Ricky D.; Saenz de Tejada, Inigo; Tam, Sang William; Worcel, Manuel; Letts, Gordon L.
PATENT ASSIGNEE(S): Nitromed, Inc., USA
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000051978	A1	20000908	WO 2000-US5286	20000301
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 1999-122273P P 19990301
US 1999-138502P P 19990609

OTHER SOURCE(S): MARPAT 133:222496
GI



I

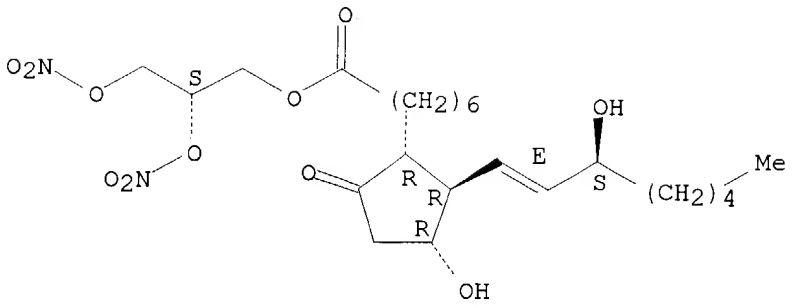
AB Novel nitrosated and/or nitrosylated prostaglandins I (R1 = OD1, Cl; R2, R8 = H, R1R2 = CH2, O; R3, R4 = H, OD1, Me; R5, R6 = H, OD1, Me, MeO, CH:CH2; R7 = H, OD1; R9 = H, allene functionality, R8R9 may form a benzene ring when R1 is a O atom; A = CH, CH2, S, O; B = CH, CH2, S, CO; X = CH2OR11, CO2R11, COND1R12; R11 = D1, alkyl, p-benzamidophenyl; R12 = SO2Me, COMe; Z = Et, Bu, hexyl, benzyl, etc; D1 = H, D; D = NO, NO2, etc) were prepared, and novel compns. were prepared comprising at least one nitrosated and/or nitrosylated prostaglandin, and, optionally, at least one compound that donates, transfers or releases nitric oxide, elevates endogenous levels of endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase, and/or at least one vasoactive agent. The novel compns. contained at least one prostaglandin and at least one S-nitrosothiol compound, and, optionally, at least one vasoactive agent. The prostaglandin is preferably a prostaglandin E1 compound, more preferably alprostadil, and the S-nitrosothiol compound is preferably S-nitrosoglutathione. The present invention also provides methods for treating or preventing sexual dysfunctions in males and females, for enhancing sexual responses in males and females, and for treating or preventing cerebrovascular disorders, cardiovascular disorders, benign prostatic hyperplasia (BPH), glaucoma, peptic ulcers or for inducing abortions. Thus, (2S,3S)-2,3,4-tris(nitroxy)butan-1-ol, prepared in 5 steps from (4S,5S)-4,5-bis(hydroxymethyl)-2,2-dimethyl-1,3-dioxolane, was treated with 7-[5-((1E)(3S)-3-hydroxyoct-1-enyl)(1R,4R,5R)-4-hydroxy-2-oxocyclopentyl]heptanoic acid to give (2S,3S)-2,3,4-tris(nitroxy)butyl 7-[5-((1E)(3S)-3-hydroxyoct-1-enyl)(1R,4R,5R)-4-hydroxy-2-oxocyclopentyl]heptanoate.

IT **291518-50-8P 291518-52-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation and biol. activity of nitrosated and nitrosylated prostaglandins)

RN 291518-50-8 CAPLUS

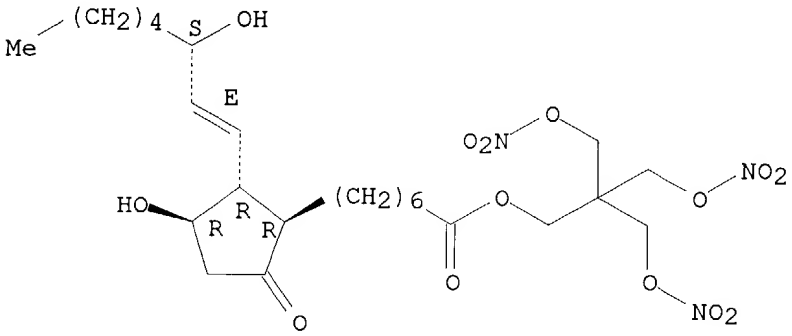
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, (2S)-2,3-bis(nitrooxy)propyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



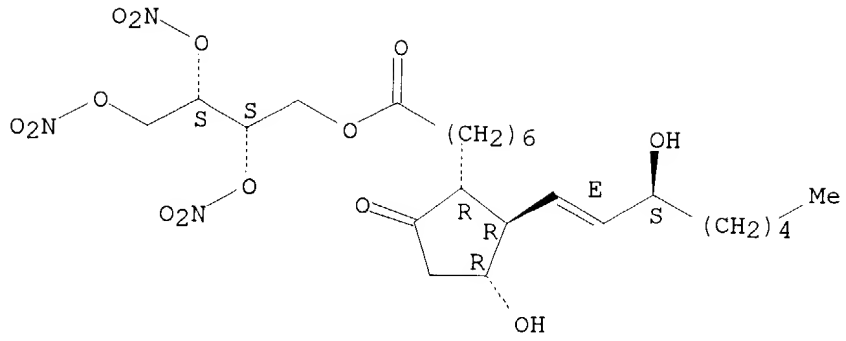
RN 291518-52-0 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, 3-(nitrooxy)-2,2-bis[(nitrooxy)methyl]propyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



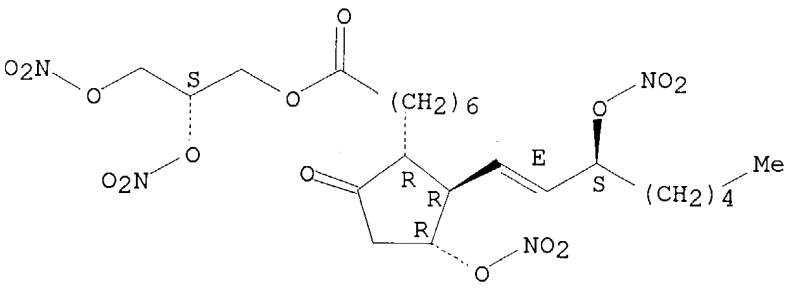
IT **291518-49-5P 291518-51-9P 291518-53-1P**
291518-54-2P 291518-55-3P 291518-56-4P
291518-57-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and biol. activity of nitrosated and nitrosylated prostaglandins)
RN 291518-49-5 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, (2S,3S)-2,3,4-tris(nitrooxy)butyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



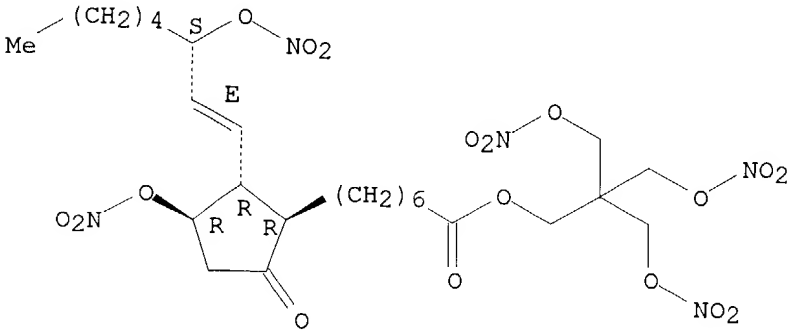
RN 291518-51-9 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis(nitrooxy)-9-oxo-, (2S)-2,3-bis(nitrooxy)propyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



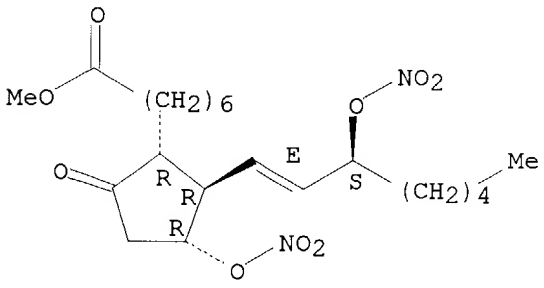
RN 291518-53-1 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis(nitrooxy)-9-oxo-, 3-(nitrooxy)-2,2-bis[(nitrooxy)methyl]propyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



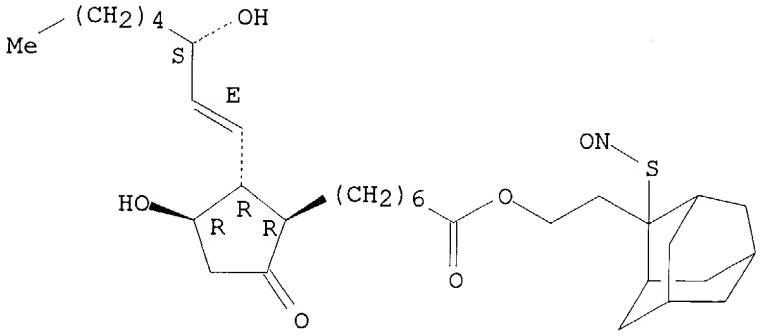
RN 291518-54-2 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis(nitrooxy)-9-oxo-, methyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



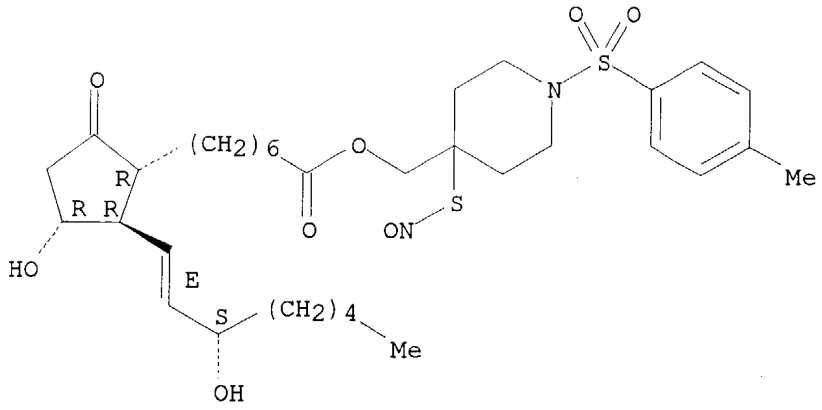
RN 291518-55-3 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, 2-[2-(nitrosothio)tricyclo[3.3.1.13,7]dec-2-yl]ethyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



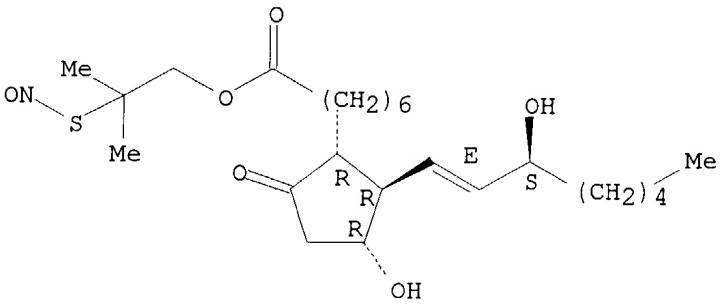
RN 291518-56-4 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, [1-[(4-methylphenyl)sulfonyl]-4-(nitrosothio)-4-piperidinyl]methyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 291518-57-5 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, 2-methyl-2-(nitrosothio)propyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:27812 CAPLUS
DOCUMENT NUMBER: 130:81347
TITLE: Prostaglandin pharmaceutical compositions
INVENTOR(S): Del Soldato, Piero
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9858910	A1	19981230	WO 1998-EP3645	19980617

W: AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9884386	A1	19990104	AU 1998-84386		19980617
AU 740683	B2	20011108			
EP 989972	A1	20000405	EP 1998-934967		19980617
EP 989972	B1	20021009			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO					
BR 9810163	A	20000808	BR 1998-10163		19980617
JP 2002506440	T2	20020226	JP 1999-503738		19980617
AT 225771	E	20021015	AT 1998-934967		19980617
PT 989972	T	20030228	PT 1998-934967		19980617
ES 2185188	T3	20030416	ES 1998-934967		19980617
US 6211233	B1	20010403	US 1999-423286		19991108
PRIORITY APPLN. INFO.:			IT 1997-MI1440	A	19970619
			WO 1998-EP3645	W	19980617

OTHER SOURCE(S): MARPAT 130:81347

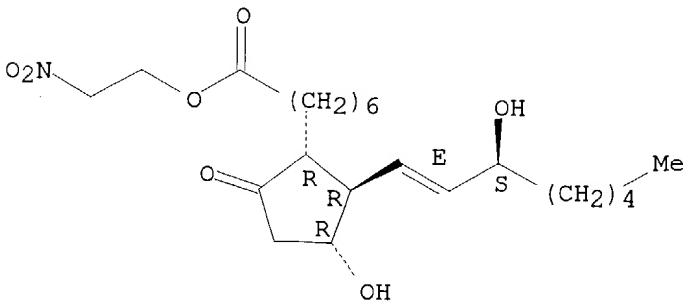
AB Compds. of the general formula A-X-NO2, or their pharmaceutical compns., wherein A contains a prostaglandin residue, X is a bivalent connecting bridge were prepared for treatment of impotence. Thus, PGE1 was treated with p-toluenesulfonyl chloride in acetone containing Et3N and then 2-nitroethanol to give the 2-nitroethyl ester of prostaglandin E1 (I). I inhibited adrenalin-induced contraction on human cavernous artery at 10-6M by 71.6%. I increased the erection observed in rats by 92% after 30 mins.

IT **218916-49-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostaglandin pharmaceutical compns.)

RN 218916-49-5 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, 2-nitroethyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

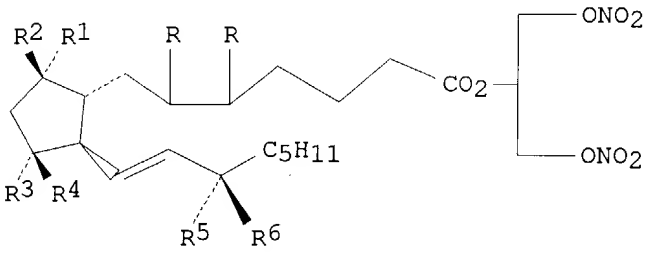


REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:318731 CAPLUS
DOCUMENT NUMBER: 127:5308
TITLE: Preparation of dinitroglycerol esters of unsaturated fatty acids and prostaglandins as antihypertensive cardiovascular and platelet anti-aggregating agents
INVENTOR(S): Bezuglov, Vladimir V.; Serkov, Igor V.
PATENT ASSIGNEE(S): Russia
SOURCE: U.S., 13 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5625083	A	19970429	US 1995-458282	19950602
PRIORITY APPLN. INFO.:			US 1995-458282	19950602

OTHER SOURCE(S): MARPAT 127:5308
GI



I

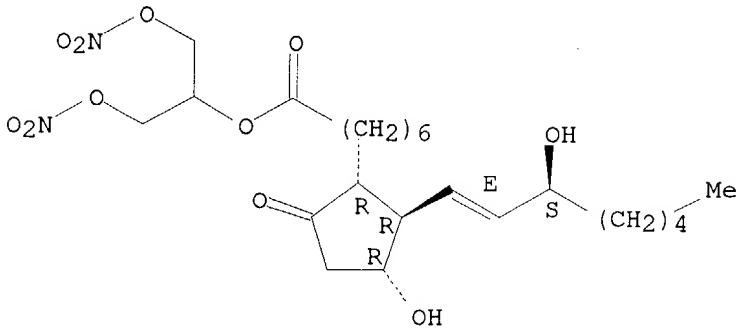
AB Dinitroglycerol esters of fatty acids, hydroxy fatty acids, and prostaglandins, I (R = H; RR = bond; R1,R2 = H, OH, oxo, hydroxyimino; R3,R4 = oxo, hydroxyimino; R5,R6 = H, OH, F) were prepared as antihypertensive cardiovascular and platelet antiaggregating agents. Dinitroglycerol esters provided by this invention have an improved biol. specificity and/or a greater specific activity than the parent compound The novel prostanoids produced herein may be used as vasodilators, antihypertensive cardiovascular agents, bronchodilators, and they may have uses in obstetrics and gynecol. The dinitroglycerol esters of fatty acids and hydroxy fatty acids may be useful as platelet anti-aggregating agents. Thus, dinitroglycerol ester of prostaglandin E1 was prepared as inhibitor of ADP-induced aggregation of human platelets (IC50 = 0.19 x 10-6 M).

IT **189940-81-6P 189940-83-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)

RN 189940-81-6 CAPLUS

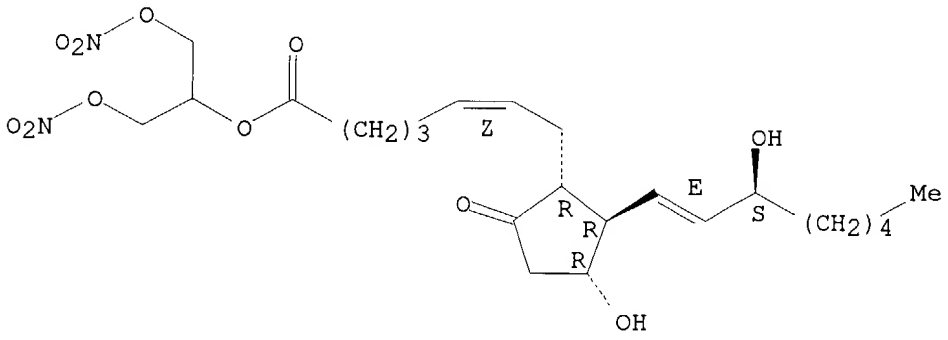
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, 2-(nitrooxy)-1-[(nitrooxy)methyl]ethyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



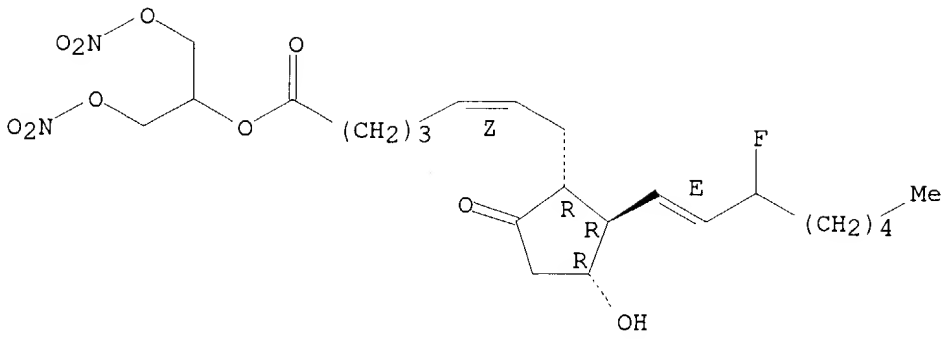
RN 189940-83-8 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, 2-(nitrooxy)-1-[(nitrooxy)methyl]ethyl ester, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **189940-93-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)
RN 189940-93-0 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 15-fluoro-11-hydroxy-9-oxo-, 2-(nitrooxy)-1-[(nitrooxy)methyl]ethyl ester, (5Z,11α,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



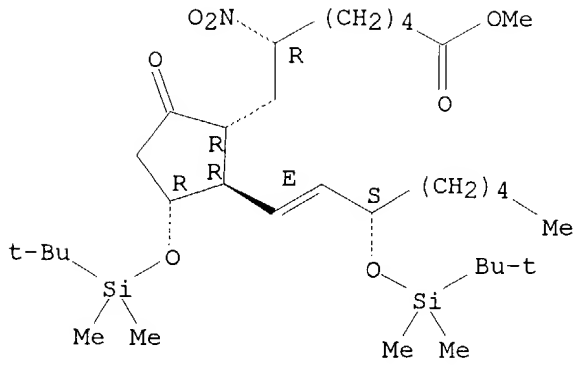
L24 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:42302 CAPLUS
DOCUMENT NUMBER: 114:42302
TITLE: Three-component coupling synthesis of prostaglandins. A simplified, general procedure
AUTHOR(S): Suzuki, Masaaki; Morita, Yasushi; Koyano, Hiroshi; Koga, Masahiro; Noyori, Ryoji
CORPORATE SOURCE: Dep. Chem., Nagoya Univ., Chikusa, 464-01, Japan
SOURCE: Tetrahedron (1990), 46(13-14), 4809-22
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:42302

AB In the presence of Me2Zn (R)-tert-butyldimethylsiloxy-2-cyclopentenone can be linked with (S,E)-1-lithio-3-tert-butyldimethylsiloxy-1-octene and Me 7-iodo-5-heptynoate, giving a protected 5,6-didehydroprostaglandin E2. Use of an ω side-chain aldehyde or nitroalkene in place of the propargyl iodide affords the C-7 and C-6 functionalized prostaglandins, resp. This new protocol constitutes the simplest three-component method for the synthesis of various natural and unnatural prostaglandins.

IT **88462-12-8P 88462-13-9P 131235-49-9P 131235-50-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by 3-component coupling reaction)

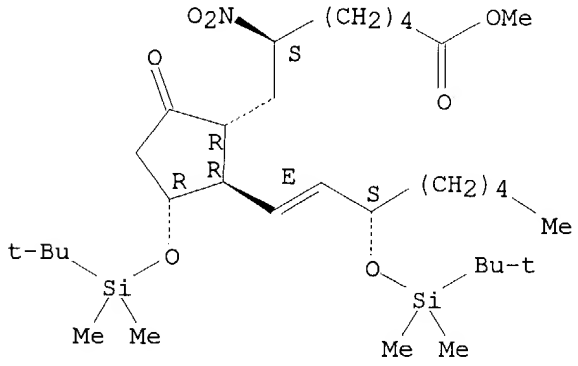
RN 88462-12-8 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6R,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



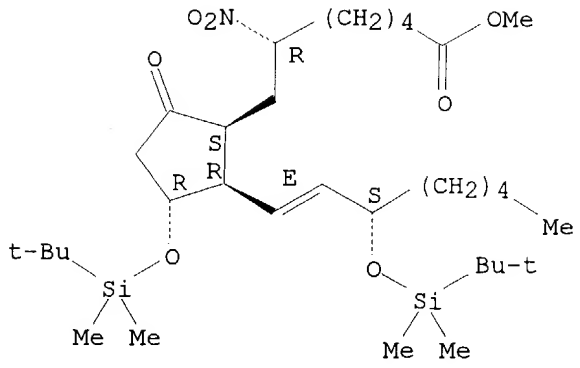
RN 88462-13-9 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6S,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



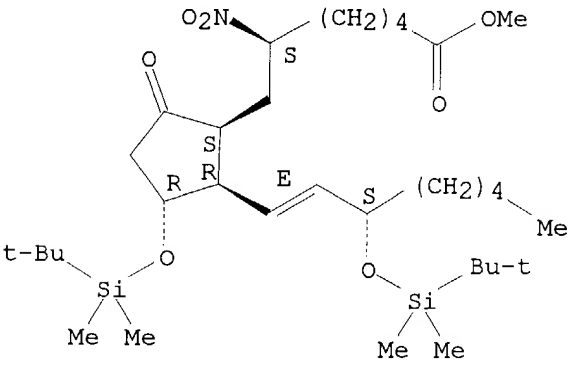
RN 131235-49-9 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6R,8β,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 131235-50-2 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6S,8β,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L24 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1990:440220 CAPLUS
DOCUMENT NUMBER: 113:40220
TITLE: Synthesis of functionalized prostaglandins via the organozinc-aided three-component method
AUTHOR(S): Suzuki, M.; Koyano, H.; Morita, Y.; Noyori, R.
CORPORATE SOURCE: Dep. Chem., Nagoya Univ., Nagoya, 464-01, Japan
SOURCE: Synlett (1989), (1), 22-3
CODEN: SYNLES; ISSN: 0936-5214
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:40220
AB Michael reaction of (R)-4-(tert-butyldimethylsiloxy)-2-cyclopenten-1-one with the organometallic reagent formed from Me2Zn and (S)-3-(tert-butyldimethylsilyloxy)-1-lithio-1-octene gives the enolate, which is trapped with a variety of electrophiles, i.e. two aldehydes, a

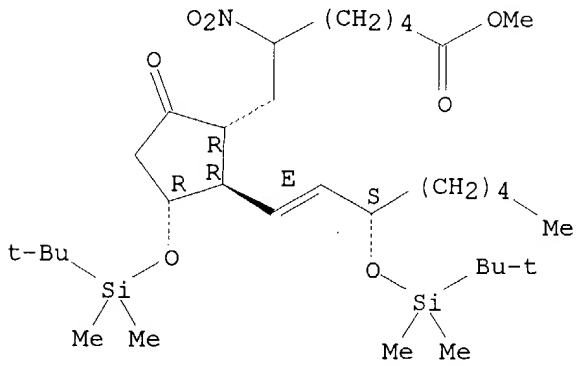
2-nitro-1-alkene, and a propargyl iodide, in a regio- and stereocontrolled manner. This tandem sequence constitutes a convenient organometallic route to physiol. significant prostaglandin analogs.

IT **92077-99-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 92077-99-1 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L24 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1988:118985 CAPLUS
DOCUMENT NUMBER: 108:118985
TITLE: Preservatives and/or antioxidants for prostaglandins in pharmaceuticals
INVENTOR(S): Kawaguchi, Takeo; Suzuki, Yoshiki
PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62201817	A2	19870905	JP 1986-44019	19860303

PRIORITY APPLN. INFO.: JP 1986-44019 19860303

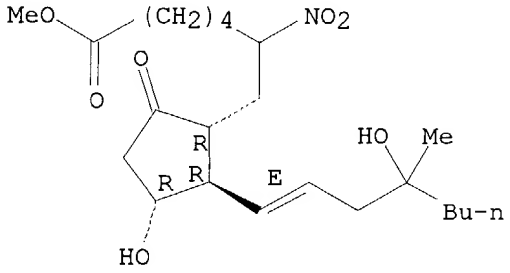
AB Pharmaceuticals contain 15-deoxy-16-hydroxyprostaglandins stabilized by preservative and/or antioxidants in a plant oil. 15-Deoxy-16-hydroxy-16-methyl-7-thiaprostaglandin E1 Me ester 1 and dibutylhydroxytoluene 1 mg were dissolved in 1 mL of coconut oil. When this formulation was stored at 60° for 6 wk, 99.6% of the prostaglandin remained intact.

IT **101642-19-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceuticals containing, antioxidants and preservatives for)

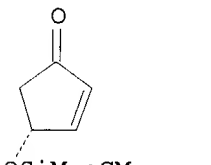
RN 101642-19-7 CAPLUS

CN Prost-13-en-1-oic acid, 11,16-dihydroxy-16-methyl-6-nitro-9-oxo-, methyl ester, (11α,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L24 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1988:55687 CAPLUS
DOCUMENT NUMBER: 108:55687
TITLE: Prostaglandin chemistry. XXXII. Nitro olefin-trapping reaction of enolates in situ generated by conjugate addition reaction. Short syntheses of PGE1, 6-oxo-PGE1, 6-oxo-PGF1α, and PGI2
AUTHOR(S): Tanaka, Toshio; Hazato, Atsuo; Bannai, Kiyoshi; Okamura, Noriaki; Sugiura, Satoshi; Manabe, Kenji; Toru, Takeshi; Kurozumi, Seizi
CORPORATE SOURCE: Inst. Bio-Med. Res., Teijin Ltd., Tokyo, 191, Japan
SOURCE: Tetrahedron (1987), 43(5), 813-24
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 108:55687
GI



I

AB The nitro olefin trapping of the enolates generated in situ by conjugate addition of organocopper reagents to the chiral oxygenated cyclopentenone synthon (R)-I gives the three-component coupling products in a regiospecific manner. The intermediate nitronate anion is further transformed into the nitro compound or into 6-oxo-PGE1 in a single pot. This coupling reaction is applicable to the syntheses of naturally occurring prostaglandins such as PGE1, 6-oxo-PGF1α, and PGI2.

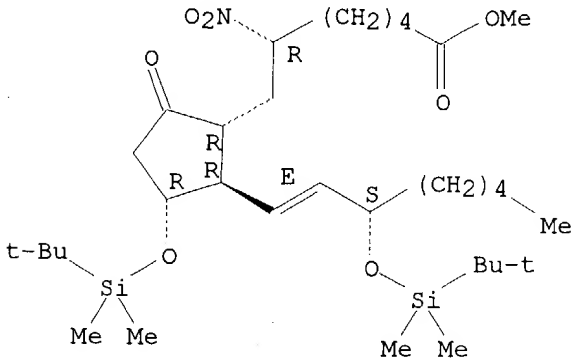
IT **88462-12-8P 88462-13-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and desilylation of)

RN 88462-12-8 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6R,11α,13E,15S)- (9CI) (CA INDEX NAME)

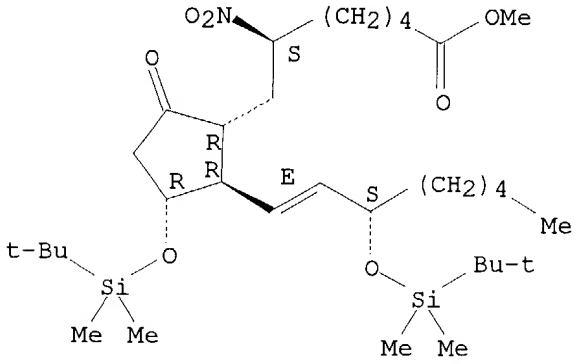
Absolute stereochemistry.
Double bond geometry as shown.



RN 88462-13-9 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6S,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **112354-59-3P**

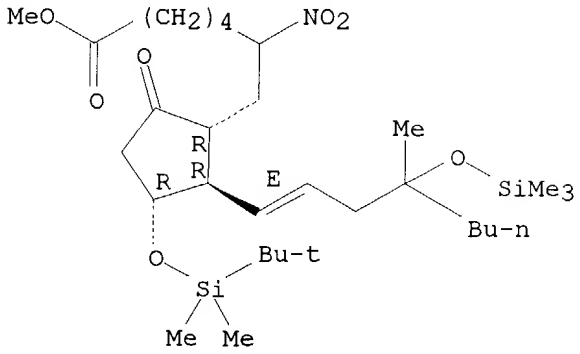
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)

RN 112354-59-3 CAPLUS

CN Prost-13-en-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-16-methyl-6-nitro-9-oxo-16-[(trimethylsilyl)oxy]-, methyl ester, (11α,13E)-(±)- (9CI) (CA INDEX NAME)

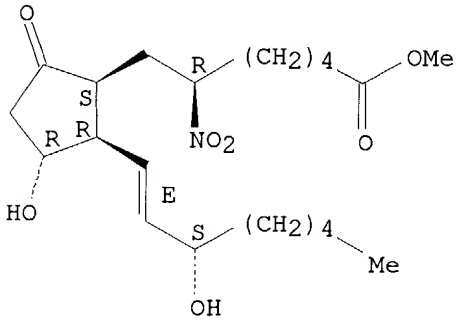
Relative stereochemistry.

Double bond geometry as shown.



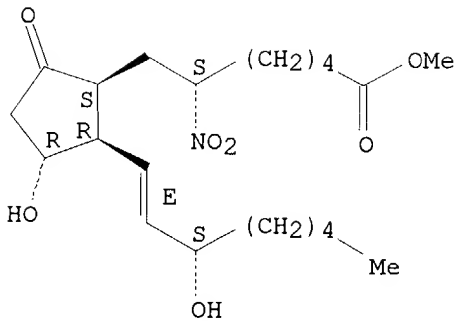
IT **112419-89-3P 112419-90-6P 112419-91-7P**
112419-92-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 112419-89-3 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-6-nitro-9-oxo-, methyl ester, (6R,8β,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



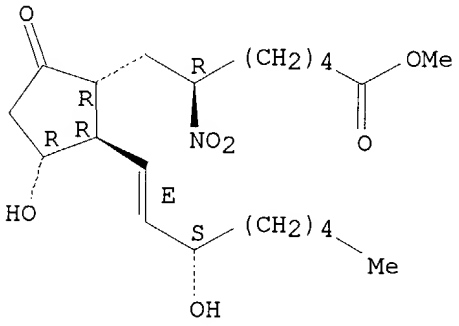
RN 112419-90-6 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-6-nitro-9-oxo-, methyl ester, (6S,8β,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



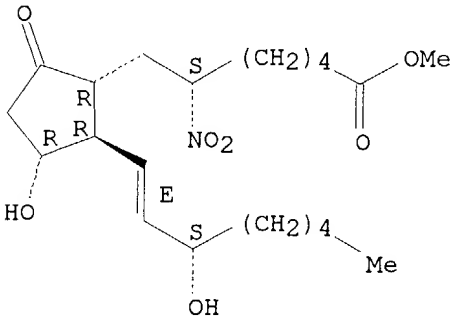
RN 112419-91-7 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-6-nitro-9-oxo-, methyl ester, (6R,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 112419-92-8 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-6-nitro-9-oxo-, methyl ester, (6S,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L24 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:442534 CAPLUS
DOCUMENT NUMBER: 105:42534
TITLE: 6-Hydroxyiminoprostaglandin E1 derivatives
INVENTOR(S): Tanaka, Toshio; Hazato, Atsuo; Kurozumi, Seiji
PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60193964	A2	19851002	JP 1984-49201	19840316
JP 02005747	B4	19900205		
PRIORITY APPLN. INFO.:			JP 1984-49201	19840316

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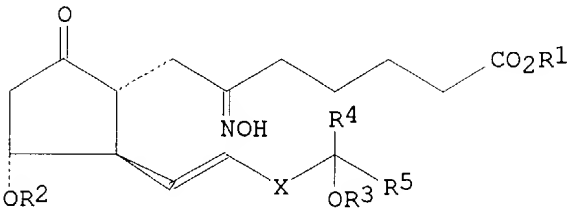
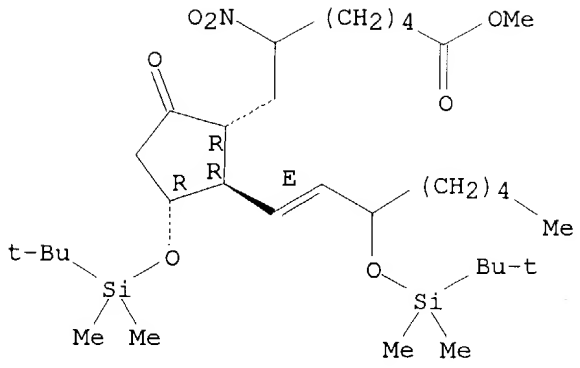


I

AB Title compds. I (R1 = H, alkyl, (un)substituted Ph, cycloalkyl, phenylalkyl, cation; R2, R3 = H, silyl, etc.; R4 = H, Me, vinyl; R5 = alkyl, (un)substituted Ph, phenoxy, cycloalkyl, etc.; X = bond, CH2] were prepared Thus, desilylation of dl-(15RS)-11,15-bis(tert-butyldimethylsilyl)-6-hydroxyiminoprostaglandin E1 Me ester, prepared from dl-(E)-3-tert-butyldimethylsilyloxy-1-iodo-1-octene, dl-4-tert-butyldimethylsilyloxy-2-cyclopentenone, and Me 6-nitro-6-heptenoate, gave 6-hydroxyiminoprostaglandin E1 Me ester.

IT **103130-33-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 103130-33-2 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L24 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1986:168261 CAPLUS
DOCUMENT NUMBER: 104:168261
TITLE: 6-Substituted prostaglandin E1's
INVENTOR(S): Tanaka, Toshio; Hazato, Atsuo; Kurozumi, Seiji
PATENT ASSIGNEE(S): Teijin Ltd. , Japan
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8503935	A1	19850912	WO 1985-JP96	19850228
W: AU, KR, US				
RW: CH, DE, FR, GB, NL, SE				
JP 60181068	A2	19850914	JP 1984-36096	19840229
JP 02005745	B4	19900205		
AU 8539989	A1	19850924	AU 1985-39989	19850228
AU 568929	B2	19880114		
EP 173753	A1	19860312	EP 1985-901083	19850228
EP 173753	B1	19891018		
R: CH, DE, FR, GB, LI, NL, SE				
US 4797506	A	19890110	US 1985-794857	19851018
PRIORITY APPLN. INFO.:			JP 1984-36096	19840229
			WO 1985-JP96	19850228

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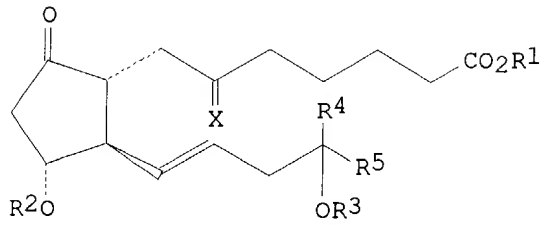


I

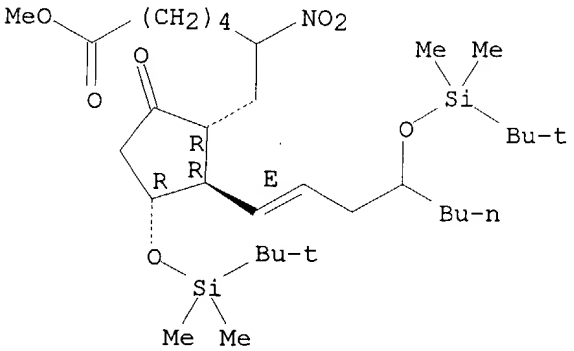
AB Title compds. I [R1 = H, alkyl, (un)substituted Ph, cycloalkyl, phenylalkyl, cation; R2, R3 = H, silyl, etc.; R4 = H, Me, vinyl; R5 = alkyl, alkenyl, alkynyl, (un)substituted Ph, phenoxy, cycloalkyl, alkoxy, etc.; X = H, NO2 or O], useful as platelet aggregation inhibitors anf for ulcer treatment, were prepared Thus, reaction of dl-(E)-4-tert-butyldimethylsilyloxy-1-iodo-1-octene with (4R)-4-tert-butyldimethylsilyloxy-2-cyclopentenone and Me 6-nitro-6-heptenoate in Et2O in the presence of Me3CLi, CuI, and Bu3P gave, after desilylation (16RS)-15-deoxy-16-hydroxy-6-oxoprostaglandin E1 Me ester. I (R1 = R4 = Me, R2 = R3 = H, R5 = Bu) had an antiulcer ED50 of 22 μg/kg orally in rats.

IT **101642-16-4P 101642-17-5P 101642-18-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and desilylation of)

RN 101642-16-4 CAPLUS

CN Prost-13-en-1-oic acid, 11,16-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E)- (9CI) (CA INDEX NAME)

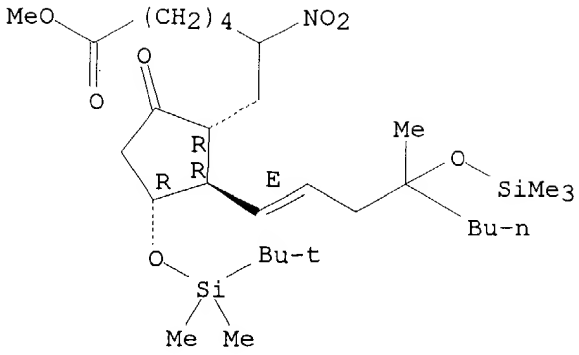
Absolute stereochemistry.
Double bond geometry as shown.



RN 101642-17-5 CAPLUS

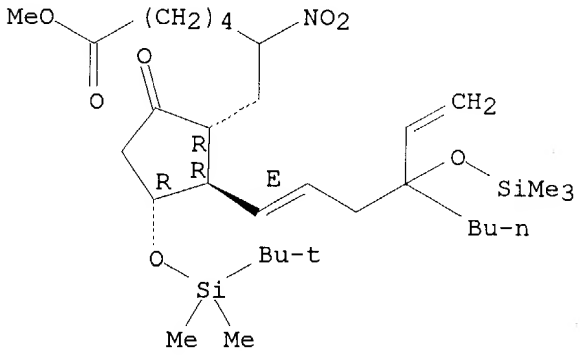
CN Prost-13-en-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-16-methyl-6-nitro-9-oxo-16-[(trimethylsilyl)oxy]-, methyl ester, (11α,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



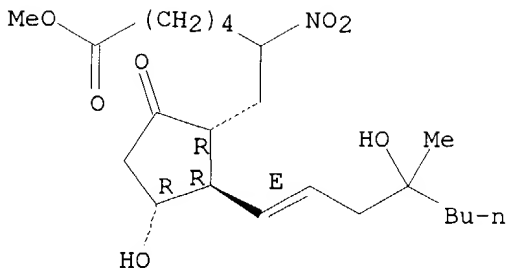
RN 101642-18-6 CAPLUS
CN Prost-13-en-1-oic acid, 11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-16-ethenyl-6-nitro-9-oxo-16-[(trimethylsilyl)oxy]-, methyl ester, (11α,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



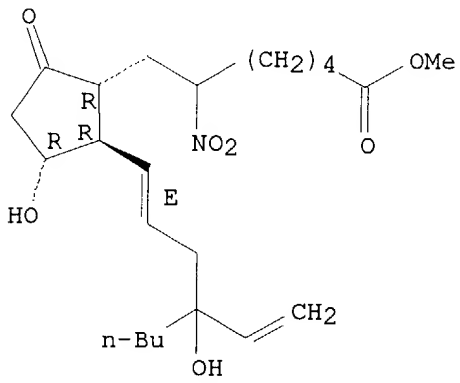
IT **101642-19-7P 101642-20-0P 101660-37-1P 101694-17-1P 101694-18-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as antiulcer)
RN 101642-19-7 CAPLUS
CN Prost-13-en-1-oic acid, 11,16-dihydroxy-16-methyl-6-nitro-9-oxo-, methyl ester, (11α,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



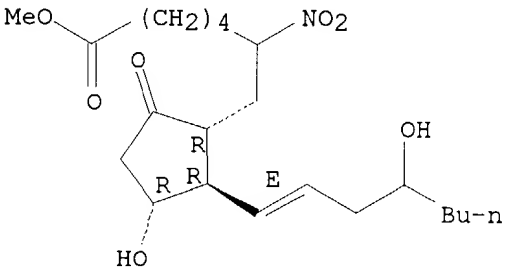
RN 101642-20-0 CAPLUS
CN Prost-13-en-1-oic acid, 16-ethenyl-11,16-dihydroxy-6-nitro-9-oxo-, methyl ester, (11α,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



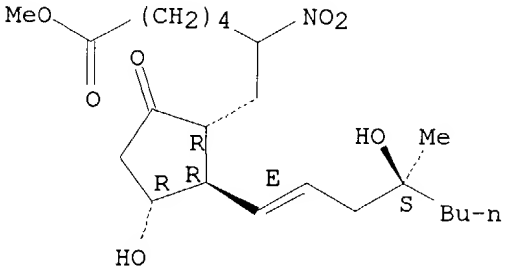
RN 101660-37-1 CAPLUS
CN Prost-13-en-1-oic acid, 11,16-dihydroxy-6-nitro-9-oxo-, methyl ester, (11α,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



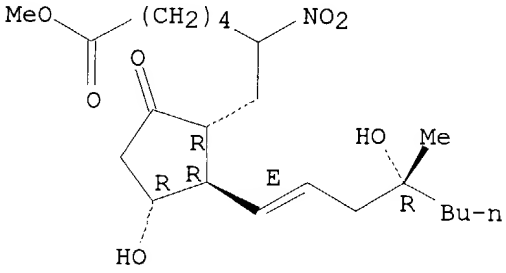
RN 101694-17-1 CAPLUS
CN Prost-13-en-1-oic acid, 11,16-dihydroxy-16-methyl-6-nitro-9-oxo-, methyl ester, (11α,13E,16S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 101694-18-2 CAPLUS
CN Prost-13-en-1-oic acid, 11,16-dihydroxy-16-methyl-6-nitro-9-oxo-, methyl ester, (11α,13E,16R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L24 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1986:56404 CAPLUS
DOCUMENT NUMBER: 104:56404
TITLE: Stabilization of prostaglandins by preservatives and /or antioxidants
INVENTOR(S): Kawaguchi, Takeo; Suzuki, Yoshiki
PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60169430	A2	19850902	JP 1984-24515	19840214
PRIORITY APPLN. INFO.:			JP 1984-24515	19840214

AB Pharmaceutical prostaglandins are stabilized by preservatives (4-hydroxybenzoates) and/or antioxidants (phenols). Thus, 15-methyl-7-thiaprostaglandin E1 Me ester (I) and antioxidant dibutylhydroxytoluene (1 mg/mL, each) dissolved in coconut oil stored at 60° were stable, and 99.5% of I was detected after 6 wk when

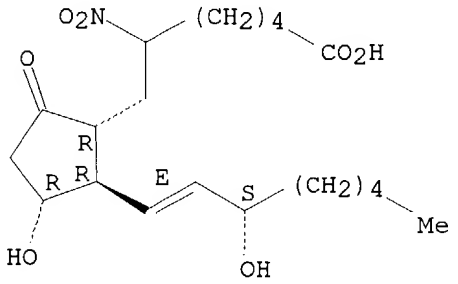
analyzed by high performance liquid chromatog.

IT **99896-81-8D**, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stabilization of, by preservatives and antioxidants)

RN 99896-81-8 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-dihydroxy-6-nitro-9-oxo-, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

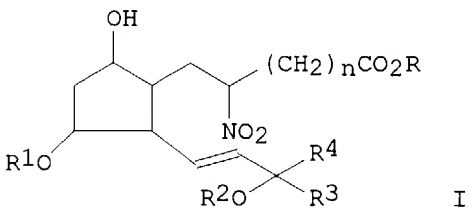


L24 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:578096 CAPLUS
DOCUMENT NUMBER: 103:178096
TITLE: 6-Nitroprostaglandin F
PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60061564	A2	19850409	JP 1983-168273	19830914
JP 02005743	B4	19900205		
PRIORITY APPLN. INFO.:			JP 1983-168273	19830914

GI



I

AB Title compds. I [R = H, alkyl, (un)substituted Ph, alicyclic, phenylalkyl, cation; R1, R2 = H, silyl; R3 = H, Me; R4 = alkyl, (un)substituted Ph,

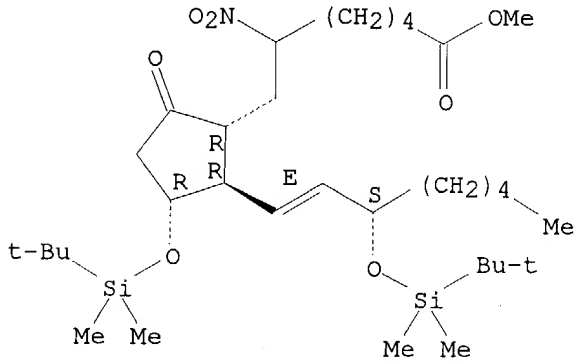
phenoxy, alicyclic; n = 1-4], useful as platelet aggregation inhibitors and vasodilators (no data), were prepared Thus, stirring 11,15-bis(tert-butyldimethylsilyl)-6-nitroprostaglandin E1 Me ester with NaBH4 in MeOH at 0°C for 40 min gave 95% 11,15-bis(tert-butyldimethylsilyl)-6-nitroprostaglandin F1α and F1β Me esters.

IT **92077-99-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)

RN 92077-99-1 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

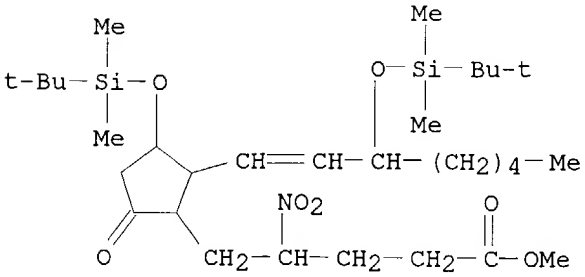
Absolute stereochemistry.
Double bond geometry as shown.



IT **92052-51-2P 92077-97-9P 92077-98-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 92052-51-2 CAPLUS

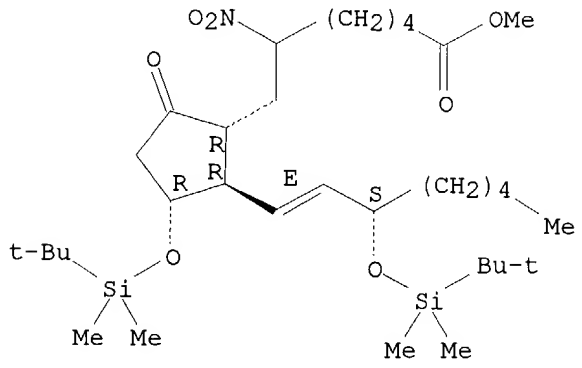
CN Cyclopentanepentanoic acid, 3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2-[3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-octenyl]-γ-nitro-5-oxo-, methyl ester (9CI) (CA INDEX NAME)



RN 92077-97-9 CAPLUS

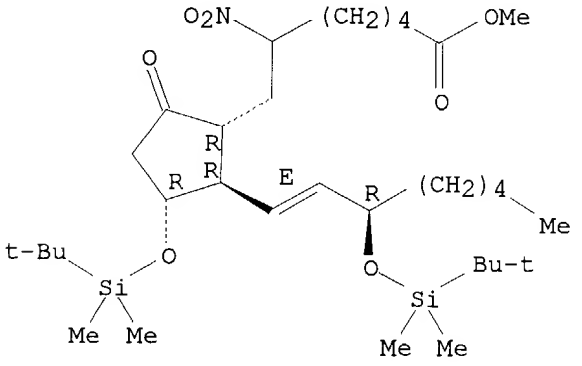
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E,15S)-(±)- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



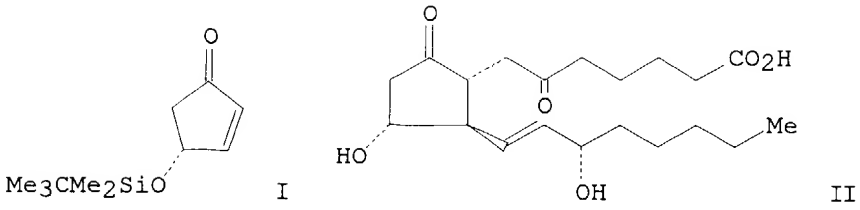
RN 92077-98-0 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E,15R)-(±)- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L24 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:184866 CAPLUS
DOCUMENT NUMBER: 102:184866
TITLE: Prostaglandin chemistry. XXIII. Short synthesis of 6-oxoprostaglandin E1 and 6-oxoprostaglandin F1α
AUTHOR(S): Tanaka, T.; Hazato, A.; Bannai, K.; Okamura, N.; Sugiura, S.; Manabe, K.; Kurozumi, S.; Suzuki, M.; Noyori, R.
CORPORATE SOURCE: Inst. Bio-Med. Res., Teijin Ltd., Hino, 191, Japan
SOURCE: Tetrahedron Letters (1984), 25(43), 4947-50
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English

GI



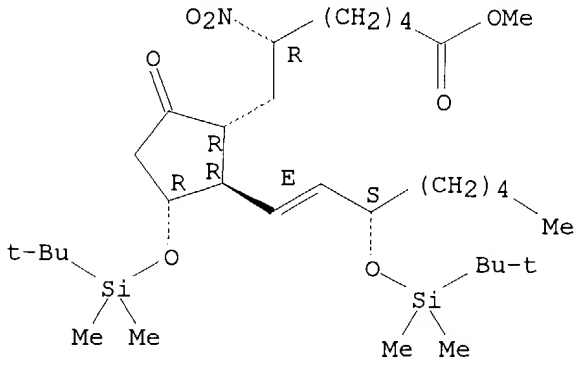
AB One-pot coupling of the cyclopentenone I, (E)-(-)-BuCH2CH(CH:CHI)OSiMe2CMe3, and O2NC(:CH2)(CH2)4CO2Me, with use of CuI, then conventional reactions, gave 6-oxo-PGE1 (II) and -PGF1α. 1-Pentynylcopper or PhSCu gave poor results.

IT **88462-12-8P 88462-13-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, attempted Nef reaction, and hydride reduction of)

RN 88462-12-8 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6R,11α,13E,15S)- (9CI) (CA INDEX NAME)

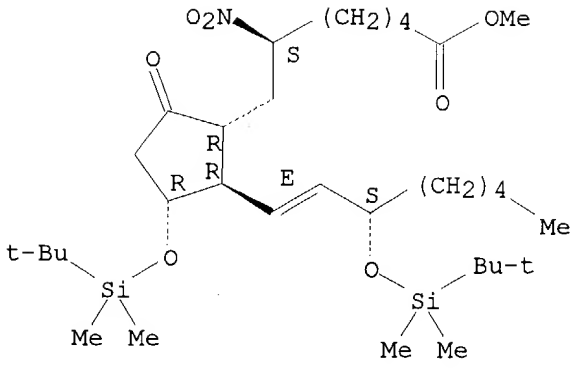
Absolute stereochemistry.
Double bond geometry as shown.



RN 88462-13-9 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6S,11α,13E,15S)- (9CI) (CA INDEX NAME)

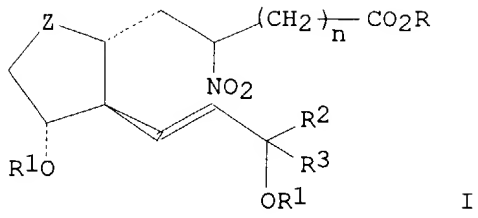
Absolute stereochemistry.
Double bond geometry as shown.



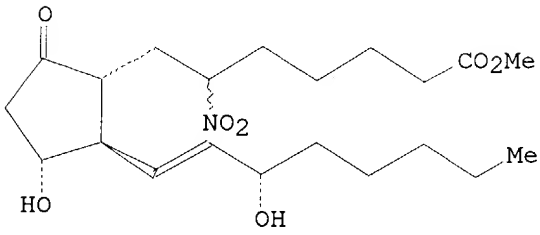
L24 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1984:551669 CAPLUS
DOCUMENT NUMBER: 101:151669
TITLE: 6-Nitroprostaglandin derivatives, and their use
INVENTOR(S): Tanaka, Toshio; Hazato, Atsuo; Kurozumi, Seizi
PATENT ASSIGNEE(S): Teijin Ltd. , Japan
SOURCE: Eur. Pat. Appl., 91 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 102230	A2	19840307	EP 1983-304831	19830822
EP 102230	A3	19840801		
EP 102230	B1	19870429		
R: CH, DE, FR, GB, IT, LI, SE				
JP 59036657	A2	19840228	JP 1982-145528	19820824
JP 01041143	B4	19890904		
JP 59036658	A2	19840228	JP 1982-145529	19820824
JP 02010152	B4	19900306		
JP 59231066	A2	19841225	JP 1983-104320	19830613
JP 01041146	B4	19890904		
JP 60011461	A2	19850121	JP 1983-116999	19830630
JP 01041147	B4	19890904		
US 4649156	A	19870310	US 1985-756574	19850719
PRIORITY APPLN. INFO.:			JP 1982-145528	19820824
			JP 1982-145529	19820824
			JP 1983-104320	19830613
			JP 1983-116999	19830630
			US 1983-525904	19830824

GI



I



II

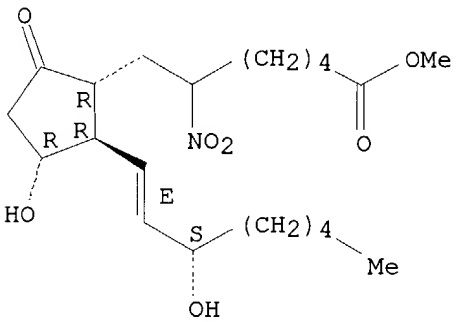
AB Title compds. (I) [Z = CO or CH(OH); n = 1-4; R = H, C1-10 alkyl, etc.; R1 = H or protecting group; R2, R3 = groups associated with prostaglandins] were
prepared by appropriate modifications of conventional methods and shown to have antihypertensive activity and to inhibit ulcer formation and platelet aggregation. Thus prepared was, e.g., 6-nitro-PGE1 Me ester (II). I 11,15-disilyl ether derivs. were converted into the 6-oxo analogs by e.g., Ph3P-TiCl3 in NH4OAc-THF-MeOH.

IT **92070-33-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and biol. activity of)

RN 92070-33-2 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-dihydroxy-6-nitro-9-oxo-, methyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

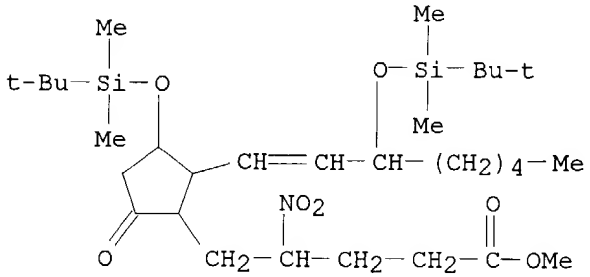


IT **92052-51-2P 92077-97-9P 92077-98-0P 92077-99-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

RN 92052-51-2 CAPLUS

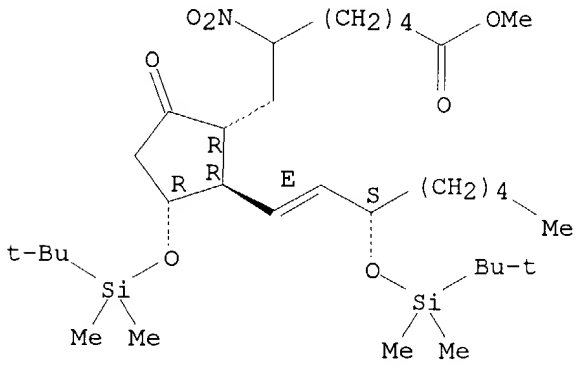
CN Cyclopentanepentanoic acid, 3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2-[3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-octenyl]-γ-nitro-5-oxo-, methyl ester (9CI) (CA INDEX NAME)



RN 92077-97-9 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E,15S)-(±)- (9CI) (CA INDEX NAME)

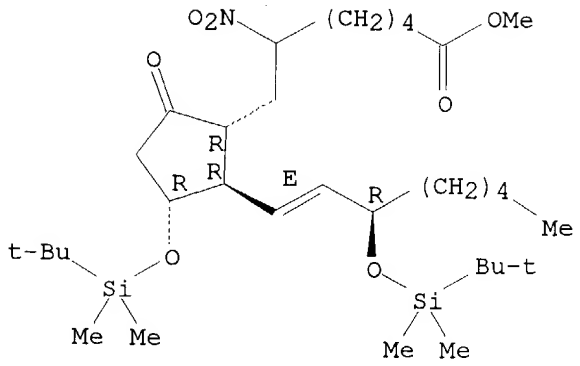
Relative stereochemistry.
Double bond geometry as shown.



RN 92077-98-0 CAPLUS

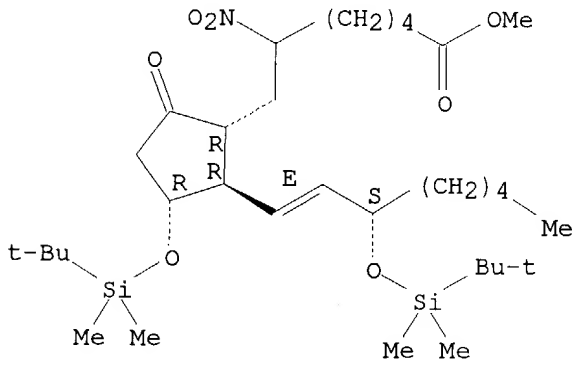
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E,15R)-(±)- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

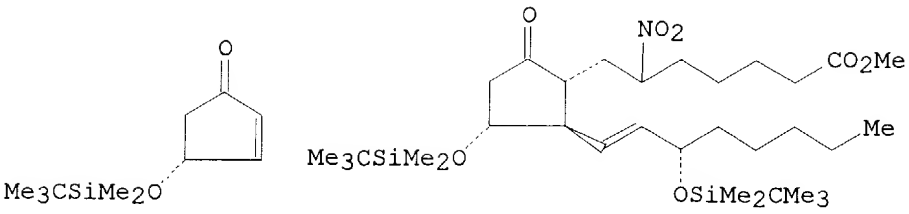


RN 92077-99-1 CAPLUS
CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L24 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1984:51325 CAPLUS
DOCUMENT NUMBER: 100:51325
TITLE: Prostaglandin chemistry. XXI. A short synthesis of (-)-prostaglandin E1
AUTHOR(S): Tanaka, T.; Toru, T.; Okamura, N.; Hazato, A.; Sugiura, S.; Manabe, K.; Kurozumi, S.; Suzuki, M.; Kawagishi, T.; Noyori, R.
CORPORATE SOURCE: Inst. Bio-Med. Res., Teijin Ltd., Hino, 191, Japan
SOURCE: Tetrahedron Letters (1983), 24(38), 4103-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



II

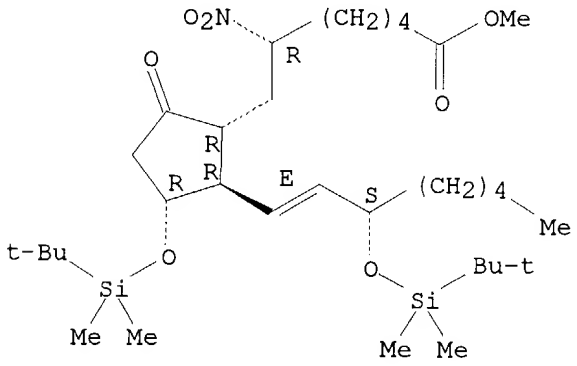
AB One-pot reaction of (-)-(E)-ICH:CHCH(OSiMe2CMe3)CH2Bu with 2 equivs Me3CLi, then 1 equiv CuI and 2 equiv Bu3P, addition of (+)-I, then addition of CH2:C(NO2)(CH2)4CO2Me gave II, which was denitrated with Bu3SnH, desilylated, and hydrolyzed to give PGE1.

IT **88462-12-8P 88462-13-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and denitration of)

RN 88462-12-8 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6R,11α,13E,15S)- (9CI) (CA INDEX NAME)

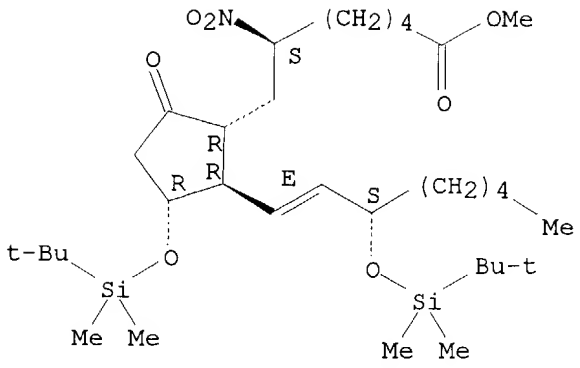
Absolute stereochemistry.
Double bond geometry as shown.



RN 88462-13-9 CAPLUS

CN Prost-13-en-1-oic acid, 11,15-bis[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-nitro-9-oxo-, methyl ester, (6S,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

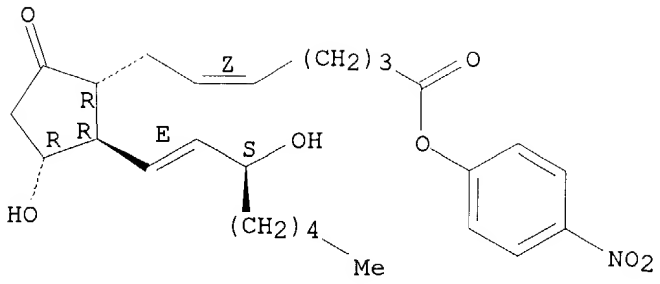


L24 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:549550 CAPLUS
DOCUMENT NUMBER: 93:149550
TITLE: Prostaglandin prodrugs. VI: Structure-thermodynamic activity and structure-aqueous solubility relationships
AUTHOR(S): Anderson, Bradley D.; Conradi, Robert A.
CORPORATE SOURCE: Upjohn Co., Kalamazoo, MI, 49001, USA
SOURCE: Journal of Pharmaceutical Sciences (1980), 69(4), 424-30
CODEN: JPMSAE; ISSN: 0022-3549
DOCUMENT TYPE: Journal
LANGUAGE: English

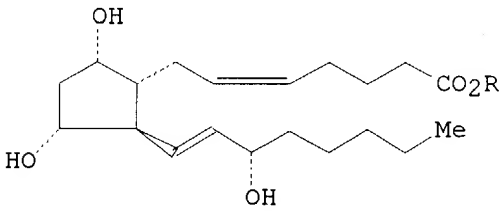
AB Solubilities in isooctane and H2O were determined for several C1-phenolic esters of prostaglandin D2α and prostaglandin E2 and acetates having the same phenol moiety. Linear free-energy relationships for solubility within the series were observed with slopes of .apprx.1. The contributions of the Ph substituent to the free energies of these processes are similar in the 3 series, even though the structure of the acyl moiety is varied. In addition, aqueous solubility was separated into 2 thermodn. components, reflecting transfer from the solid phase to an inert solvent and from the latter to H2O, to evaluate the relative effects of various substituents on the release tendency of the drug from the solid phase and on solution interactions. Polar, H-bonding functional groups in many cases do not increase aqueous solubility because of a corresponding increase in intermol. interaction in the solid phase.

IT **74973-21-0**
RL: PRP (Properties)
(solubility of)
RN 74973-21-0 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, 4-nitrophenyl ester, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L24 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1979:592868 CAPLUS
DOCUMENT NUMBER: 91:192868
TITLE: Prostaglandin prodrugs. II: New method for synthesizing prostaglandin C1-aliphatic esters
AUTHOR(S): Morozowich, W.; Oesterling, T. O.; Miller, William Louis; Douglas, Scott L.
CORPORATE SOURCE: Res. Lab., Upjohn Co., Kalamazoo, MI, 49001, USA
SOURCE: Journal of Pharmaceutical Sciences (1979), 68(7), 836-8
CODEN: JPMSAE; ISSN: 0022-3549
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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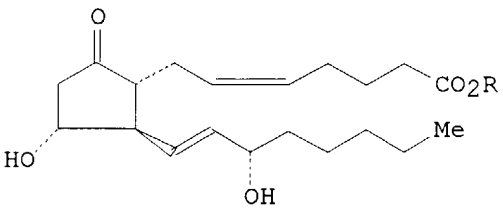


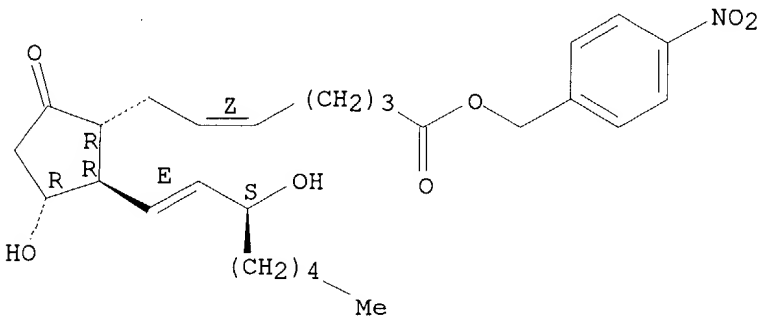
II

AB A new method for synthesizing C1-aliphatic esters of dinoprost and dinoprostone without using hydroxyl protective groups was described. Reaction of the prostaglandin with an alkyl halide in the presence of the sterically hindered amine N,N-diisopropylethylamine proceeded smoothly to give C1-esters in various solvents at ambient or slightly elevated temps. Polar solvents were strongly catalytic, and even the hindered tert-Bu esters were synthesized by employing solvents such as DMF or Me2SO. Biol.

evaluation in the hamster antifertility assay showed that some esters maintained high bioactivity. Thus prepared were I (R = Et, Pr, Me2CH, Bu, EtCHMe, Me3C, decyl, C6F5CH2, 4-O2NC6H4CH2) and II (R = Me, Et, Pr, Me2CH, Bu, Me2CHCH2, EtCHMe, Et2CH, hexyl, decyl, benzyl, 4-O2NC6H4CH2).

IT **71845-71-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 71845-71-1 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, (4-nitrophenyl)methyl ester, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

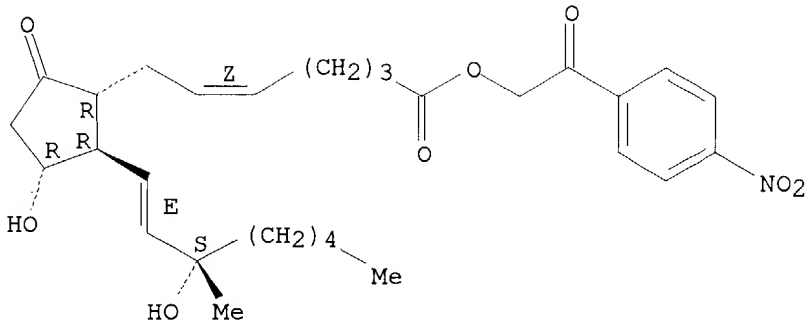


L24 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1978:169370 CAPLUS
DOCUMENT NUMBER: 88:169370
TITLE: Kinetics of epimerization of 15(R)-methylprostaglandin E2 and of 15(S)-methylprostaglandin E2 as a function of pH and temperature in aqueous solution
AUTHOR(S): Merritt, Margaret V.; Bronson, George E.
CORPORATE SOURCE: Phys. Anal. Chem. Res., Upjohn Co., Kalamazoo, MI, USA
SOURCE: Journal of the American Chemical Society (1978), 100(6), 1891-5
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The equilibrium constant for the title process was 1. The rate at 37.2° was 4.45[H+] min-1, and the activation energy was 20.6 ± 0.4 kcal/mol. No evidence of reactions competing significantly with epimerization was detected.

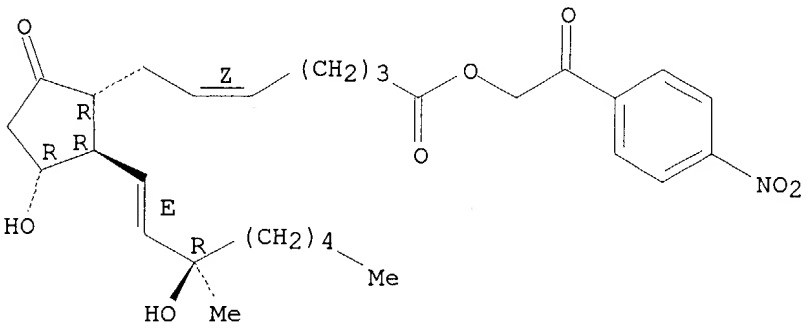
IT **59660-07-0 59660-08-1**
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of)
RN 59660-07-0 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-15-methyl-9-oxo-, 2-(4-nitrophenyl)-2-oxoethyl ester, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 59660-08-1 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-15-methyl-9-oxo-, 2-(4-nitrophenyl)-2-oxoethyl ester, (5Z,11α,13E,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

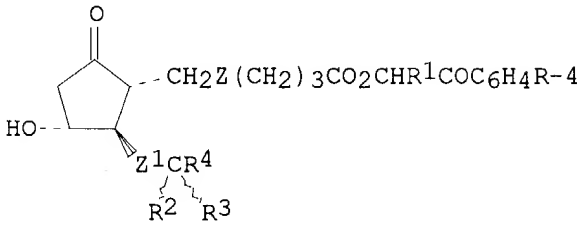


L24 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1977:89369 CAPLUS
DOCUMENT NUMBER: 86:89369
TITLE: Phenacyl-type esters of phenyl-substituted PGE-type compounds
INVENTOR(S): Morozowich, Walter
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: U.S., 15 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3979440	A	19760907	US 1975-611798	19750909
US 4304926	A	19811208	US 1974-497244	19740814
CA 1059506	A1	19790731	CA 1975-231801	19750718
ZA 7504672	A	19760630	ZA 1975-4672	19750721
AU 7583307	A1	19770127	AU 1975-83307	19750723

GB 1464205	A	19770209	GB 1975-31419	19750728
JP 51039649	A2	19760402	JP 1975-92663	19750731
NL 7509346	A	19760217	NL 1975-9346	19750806
SE 7508943	A	19760217	SE 1975-8943	19750808
FR 2281752	A1	19760312	FR 1975-25277	19750813
FR 2281752	B1	19781110		
BE 832457	A1	19760216	BE 1975-159228	19750814
JP 59018390	B4	19840426	JP 1976-6043	19760123
PRIORITY APPLN. INFO.:			US 1974-497244	19740814

GI



I

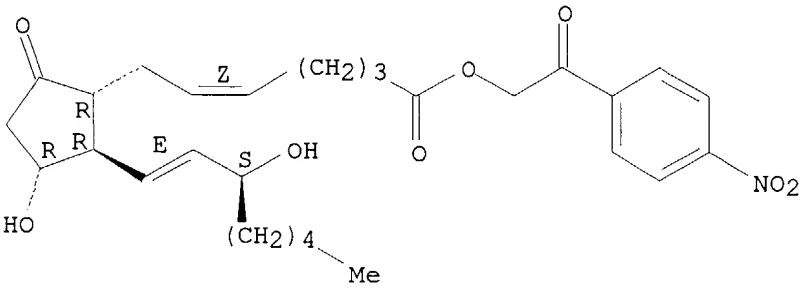
AB The title PGE1 and PGE2 derivs. I [R = H, Br, Ph, etc.; R1 = H or PhCO; (R2, R3 = α-OH, β-H; α-OH, β-Me; β-OH, α-Me); R4 = (CH2)4Me, CMe2Bu, or CH2CH2Ph; Z = cis-CH:CH or CH2CH2; Z1 = trans-CH:CH or CH2CH2], with useful pharmaceutical properties (no data), were prepared by reacting the appropriate PGE1 or PGE2 derivative acids with 4-RC6H4COCHR1Br in the presence of (Me2CH)2NEt.

IT **59660-02-5P 59660-07-0P 59660-08-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 59660-02-5 CAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, 2-(4-nitrophenyl)-2-oxoethyl ester, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

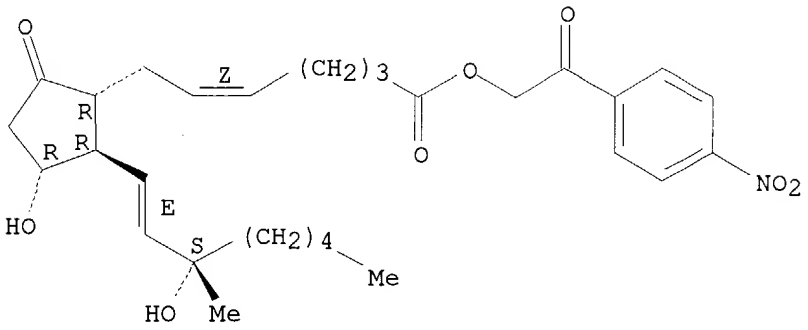
Absolute stereochemistry.
Double bond geometry as shown.



RN 59660-07-0 CAPLUS

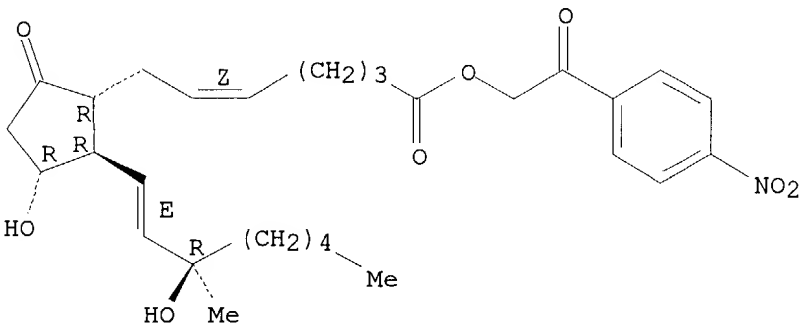
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-15-methyl-9-oxo-, 2-(4-nitrophenyl)-2-oxoethyl ester, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 59660-08-1 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-15-methyl-9-oxo-, 2-(4-nitrophenyl)-2-oxoethyl ester, (5Z,11α,13E,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



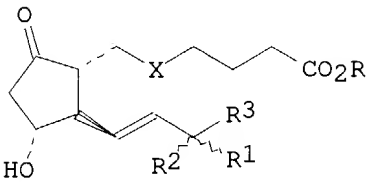
L24 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1976:432515 CAPLUS
DOCUMENT NUMBER: 85:32515
TITLE: Esters of PGE2, PGE1, and 13,14-dihydro-PGE1 prostaglandins
INVENTOR(S): Morozowich, Walter
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: Ger. Offen., 46 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2535690	A1	19760304	DE 1975-2535690	19750809

US 4304926	A	19811208	US 1974-497244	19740814
CA 1059506	A1	19790731	CA 1975-231801	19750718
ZA 7504672	A	19760630	ZA 1975-4672	19750721
AU 7583307	A1	19770127	AU 1975-83307	19750723
GB 1464205	A	19770209	GB 1975-31419	19750728
JP 51039649	A2	19760402	JP 1975-92663	19750731
NL 7509346	A	19760217	NL 1975-9346	19750806
SE 7508943	A	19760217	SE 1975-8943	19750808
FR 2281752	A1	19760312	FR 1975-25277	19750813
FR 2281752	B1	19781110		
BE 832457	A1	19760216	BE 1975-159228	19750814
JP 59018390	B4	19840426	JP 1976-6043	19760123

PRIORITY APPLN. INFO.: US 1974-497244 19740814

GI



I

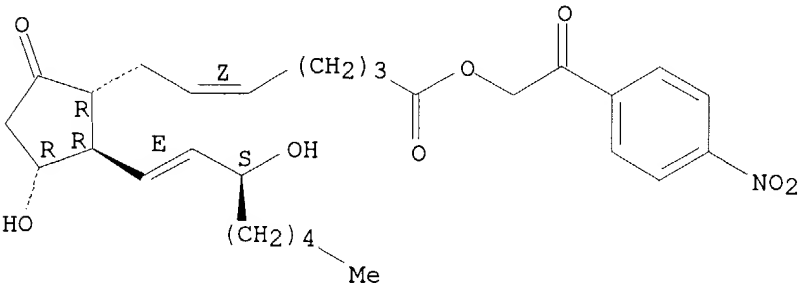
AB Esters I (X = cis-CH:CH, R = CH2Bz, CH2COC6H4Br-4, CH2COC6H4Ph-4, CH2COC6H4NO2-4, CH2COC6H4NHBz-4, 2-naphthoylmethyl, CHBz2, R1 = α-OH, R2 = H, R3 = (CH2)4Me; X = cis-CH:CH, R = CH2Bz, CH2COC6H4NO2-4, R1 = OH, R2 = Me, R3 = (CH2)4Me; X = cis-CH:CH, CH2CH2, R = CH2Bz, CH2COC6H4Ph-4, R1 = α-OH, R2 = H, R3 = CMe2Bu; X = cis-CH:CH, R = CH2Bz, CH2COC6H4Ph-4, R1 = α-OH, R2 = H, R3 = CH2CH2Ph) were prepared by esterification of acids with RBr.

IT **59660-02-5P 59660-07-0P 59660-08-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 59660-02-5 CAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, 2-(4-nitrophenyl)-2-oxoethyl ester, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

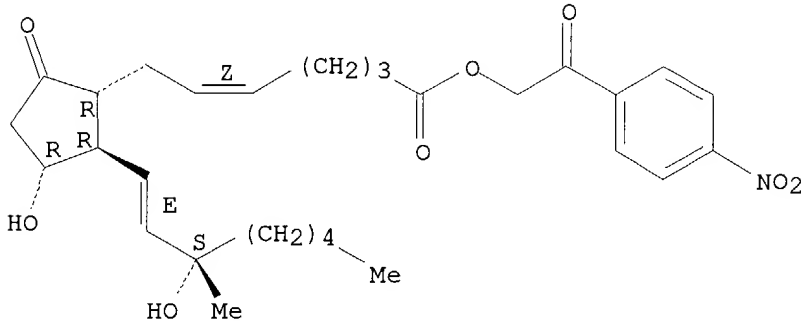


RN 59660-07-0 CAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-15-methyl-9-oxo-,

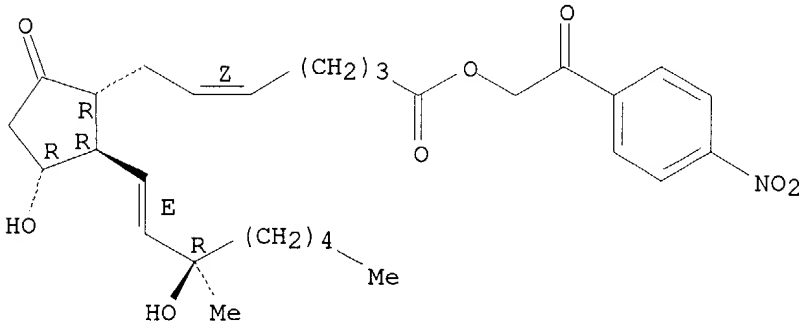
2-(4-nitrophenyl)-2-oxoethyl ester, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 59660-08-1 CAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-15-methyl-9-oxo-, 2-(4-nitrophenyl)-2-oxoethyl ester, (5Z,11α,13E,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



FILE 'CAOLD' ENTERED AT 16:07:35 ON 15 NOV 2004
L25 0 S L17

FILE 'USPATFULL' ENTERED AT 16:07:41 ON 15 NOV 2004
L26 6 S L17

L26 ANSWER 1 OF 6 USPATFULL on STN
ACCESSION NUMBER: 2001:48106 USPATFULL
TITLE: Prostaglandin pharmaceutical compositions
INVENTOR(S): Del Soldato, Piero, Milan, Italy
PATENT ASSIGNEE(S): Nicox S.A., Paris, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6211233	B1	20010403
	WO 9858910		19981230

APPLICATION INFO.:	US 1999-423286	19991108	(9)
	WO 1998-EP3645	19980617	
		19991108	PCT 371 date
		19991108	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	IT 1997-MI1440	19970619

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Dentz, Bernard
LEGAL REPRESENTATIVE: Arent, Fox, Kintner, Plotkin & Kahn
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 701
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compounds of the general formula A--X.sub.1 --NO.sub.2, or their pharmaceutical compositions, wherein A contains a prostaglandin residue, X.sub.1 is a bivalent connecting bridge.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 2 OF 6 USPATFULL on STN
ACCESSION NUMBER: 97:36343 USPATFULL
TITLE: Dinitroglycerol esters of unsaturated fatty acids and prostaglandins
INVENTOR(S): Bezuglov, Vladimir V., Apt. 100, 9 Acad. Artsymovicha St., Moscow 117437, Russian Federation
Serkov, Igor V., Apt. 119, 3 Institutskii Prospect, Chernogolovka Settlement, Moscow Province 152432, Russian Federation

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5625083		19970429	
APPLICATION INFO.:	US 1995-458282		19950602	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Gerstl, Robert
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
LINE COUNT: 1149
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel dinitroglycerol esters of fatty acids, hydroxy fatty acids and prostaglandins, and methods for producing them. Dinitroglycerol esters provided by this invention have an improved biological specificity and/or a greater specific activity than the parent compound. The novel prostanoids produced herein may be used as vasodilators, antihypertensive cardiovascular agents, bronchodilators, and they may have uses in obstetrics and gynecology. The dinitroglycerol esters of fatty acids and hydroxy fatty acids may be useful as platelet antiaggregating agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 3 OF 6 USPATFULL on STN

ACCESSION NUMBER: 89:3107 USPATFULL
TITLE: 6-substituted prostaglandins E.sub.1 and process for producing same
INVENTOR(S): Tanaka, Toshio, Hino, Japan
Hazato, Atsuo, Hino, Japan
Kurozumi, Seizi, Kokubunji, Japan
PATENT ASSIGNEE(S): Teijin Limited, Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4797506		19890110	
	WO 8503935		19850912	
APPLICATION INFO.:	US 1985-794857		19851018	(6)
	WO 1985-JP96		19850228	
			19851018	PCT 371 date
			19851018	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1984-36096	19840229

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Gerstl, Robert
LEGAL REPRESENTATIVE: Kenyon & Kenyon
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 1281
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 6-substituted prostaglandins E.sub.1 which are compounds represented by the following formula [I] or their enantiomers or mixtures whereof in any ratio: ##STR1## wherein R.sup.1 represents a hydrogen atom, a C.sub.1 -C.sub.16 alkyl group, a substituted or unsubstituted phenyl group, a substituted or unsubstituted phenyl C.sub.3 -C.sub.10 cycloalkyl group, a substituted or unsubstituted phenyl (C.sub.1 -C.sub.2) alkyl group, or one equivalent cation; R.sup.2 and R.sup.3, which may be the same or different, represent a hydrogen atom, a tri (C.sub.1 -C.sub.7) hydrocarbon silyl group, or a group forming an acetal linkage together with an oxygen atom of a hydroxyl group; R.sup.4 represents a hydrogen atom, a methyl group or a vinyl group; R.sup.5 represents a linear or branched C.sub.3 -C.sub.8 alkyl group, a linear or branched C.sub.3 -C.sub.8 alkenyl group, a linear or branced C.sub.3 -C.sub.8 alkynyl group, a phenyl group which may be substituted, a phenoxy group which may be substituted, a C.sub.3 -C.sub.10 cycloalkyl group which may be substituted, or a linear or branched C.sub.1 -C.sub.5 alkyl group which may be substituted with a C.sub.1 -C.sub.6 alkoxy group, a phenyl group which may be substituted, a phenoxy group which may be substituted, or a C.sub.3 -C.sub.10 cycloalkyl group which may be substituted; and X represents an ##STR2## group or an oxygen atom. Such 6-substituted prostaglandins E.sub.1 are useful for the treatment and/or prevention of digestive organ diseases such as duodenal ulcers or gastric ulcers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 4 OF 6 USPATFULL on STN
ACCESSION NUMBER: 87:16976 USPATFULL

TITLE: 6-nitroprostaglandin derivatives
INVENTOR(S): Tanaka, Toshio, Hino, Japan
Hazato, Atsuo, Hino, Japan
Kurozumi, Seizi, Kokubunji, Japan
PATENT ASSIGNEE(S): Teijin Limited, Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4649156		19870310
APPLICATION INFO.:	US 1985-756574		19850719 (6)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1983-525904, filed on 24 Aug 1983, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1982-145528	19820824
	JP 1982-145529	19820824
	JP 1983-104320	19830613
	JP 1983-116999	19830630

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Chan, Nicky
LEGAL REPRESENTATIVE: Sughrue, Mion, Zinn, Macpeak, and Seas
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1,9
LINE COUNT: 1996
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a novel 6-nitroprostaglandin derivatives of the formula (I) ##STR1## wherein A, n, R.sup.1, R.sup.2, R.sup.3, R.sup.4 and R.sup.5 are as defined in claim 1.

The 6-nitroprostaglandin derivatives is useful as medicines because of its excellent pharmacological activities including platelet aggregation inhibiting activity, blood pressure lowering activity and anti-ulcerous activity, and useful as intermediate for other pharmaceutically active compounds such as 6-oxoprostaglandin derivatives, prostaglandin E.sub.1 derivatives, etc.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 5 OF 6 USPATFULL on STN
ACCESSION NUMBER: 81:67145 USPATFULL
TITLE: Phenacyl-type esters of PGE-types compounds
INVENTOR(S): Morozowich, Walter, Kalamazoo, MI, United States
PATENT ASSIGNEE(S): The Upjohn Company, Kalamazoo, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4304926		19811208
APPLICATION INFO.:	US 1974-497244		19740814 (5)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Gerstl, Robert
LEGAL REPRESENTATIVE: Welch, Lawrence T., Nielsen, Morris L.
NUMBER OF CLAIMS: 30

EXEMPLARY CLAIM: 1
LINE COUNT: 776
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Phenacyl-type esters of PGE.sub.2, PGE.sub.1, and 13,14-dihydro-PGE.sub.1 and their 15-methyl, 16,16-dimethyl, and 17-phenyl analogs, including the respective 15(R)epimers, are disclosed, represented by the formula ##STR1## wherein M is ##STR2## wherein R.sub.3 is hydrogen or methyl; wherein Q is ##STR3## wherein each of R.sub.4 and R.sub.5 is hydrogen or methyl, being the same or different, or ##STR4## wherein the moiety--C.sub.t H.sub.2t -- represents a valence bond or alkylene of one to 10 carbon atoms, inclusive, with one to 7 carbon atoms, inclusive, between ##STR5## and the phenyl ring; wherein R.sub.1 is phenyl, p-bromophenyl, p-biphenylyl, p-nitrophenyl, p-benzamidophenyl, or 2-naphthyl; wherein R.sub.2 is hydrogen or benzoyl; and wherein (a) X is --CH.sub.2 CH.sub.2 -- or trans--CH.dbd.CH-- and Y is --CH.sub.2 CH.sub.2 --, or (b) X is trans--CH.dbd.CH-- and Y is cis--CH.dbd.CH--. The products are useful for the same pharmacological and medical purposes as the corresponding prostaglandins and analogs, and are also useful as a means for obtaining highly purified products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 6 OF 6 USPATFULL on STN
ACCESSION NUMBER: 76:49415 USPATFULL
TITLE: Phenacyl-type esters of phenyl-substituted PGE-type compounds
INVENTOR(S): Morozowich, Walter, Kalamazoo, MI, United States
PATENT ASSIGNEE(S): The Upjohn Company, Kalamazoo, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3979440		19760907
APPLICATION INFO.:	US 1975-611798		19750909 (5)

RELATED APPLN. INFO.: Division of Ser. No. US 1974-497244, filed on 14 Aug 1974, now Defensive Publication No.
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Killos, Paul J.
LEGAL REPRESENTATIVE: Nielsen, Morris L.
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 751
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Phenacyl-type esters of PGE.sub.2, PGE.sub.1, and 13,14-dihydro-PGE.sub.1 and their 15-methyl, 16,16-dimethyl, and 17-phenyl analogs, including the respective 15(R)epimers, are disclosed, represented by the formula ##EQU1## wherein M is ##EQU2## wherein R.sub.3 is hydrogen or methyl; wherein Q is ##EQU3## wherein each of R.sub.4 and R.sub.5 is hydrogen or methyl, being the same or different, or ##SPC1##

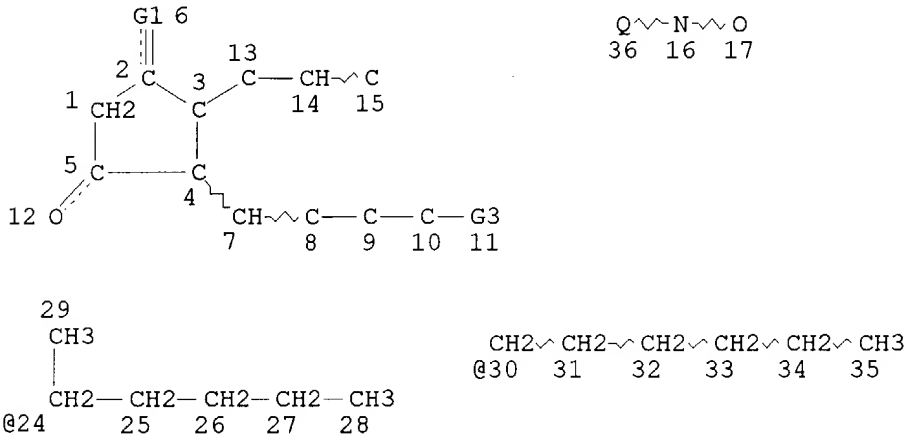
Wherein the moiety -C.sub.t H.sub.2t - represents a valence bond or alkylene of one to 10 carbon atoms, inclusive, with one to 7 carbon atoms, inclusive, between ##EQU4## and the phenyl ring; wherein R.sub.1 is phenyl, p-bromophenyl, p-biphenylyl, p-nitrophenyl, p-benzamidophenyl, or 2-naphthyl; wherein R.sub.2 is hydrogen or

benzoyl; and wherein (a) X is --CH.sub.2 CH.sub.2 -- or trans-CH=CH- and Y is -CH.sub.2 CH.sub.2 --, or (b) X is trans-CH=CH- and Y is cis-CH=CH-. The products are useful for the same pharmacological and medical purposes as the corresponding prostaglandins and analogs, and are also useful as a means for obtaining highly purified products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MARPAT' ENTERED AT 16:07:57 ON 15 NOV 2004)

L16 STR



VAR G1=CH2/O
VAR G3=ET/I-BU/N-BU/30/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:
ECLEVEL IS LIM ON ALL NODES
ALL RING(S) ARE ISOLATED

L29 46 SEA FILE=MARPAT SSS FUL L16 (MODIFIED ATTRIBUTES)

100.0% PROCESSED 6306 ITERATIONS (36 INCOMPLETE) 46 ANSWERS
SEARCH TIME: 00.01.46

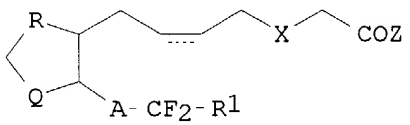
L30 10 L29/COMPLETE ← Restrict to only complete iterations ans. w/

L30 ANSWER 1 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 137:262884 MARPAT
TITLE: Preparation of ethers of difluoroprostaglandins or their salts for treatment of glaucoma and intraocular hypertension
INVENTOR(S): Matsumura, Yasushi; Miyawaki, Nobuaki; Matsuki,

Takeshi; Shimazaki, Atsushi
PATENT ASSIGNEE(S): Japan Carlit Co., Ltd., Japan; Santen Pharmaceutical Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002293771	A2	20021009	JP 2001-100254	20010330

PRIORITY APPLN. INFO.: JP 2001-100254 20010330
GI



I

AB The compds. I [A = ethylene, vinylene, ethynylene, OCH2, SCH2; X = CH2, O, S; R, Q = CO, CH(OH), CH2CH(OR2); R2 = alkyl, alkenyl, alkynyl, cycloalkyl cycloalkenyl, aralkyl; R and/or Q = CH(OR2); R1 = alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, etc.; Z = OR3, NHCOR4, NHSO2R5, SR6, NR7R8; R3-R8 = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, etc.] or their salts are prepared 15-Deoxy-15,15-difluoro-11-methoxy-16-phenoxy-17,18,19,20-tetranor-PGF2α iso-Pr ester (200 mg) was treated with pyridinium chlorochromate in the presence of mol. sieve 4A at 0° for 1 h to give 165.6 mg 15-deoxy-15,15-difluoro-11-methoxy-16-phenoxy-17,18,19,20-tetranor-PGE2 iso-Pr ester showing ocular tension change -1.4 mmHg after 8 h from eye drop in cynomolgus monkey.
IC ICM C07C405-00
ICS C07C405-00; A61K031-5575; A61P001-00; A61P009-00; A61P019-10; A61P025-00; A61P025-04; A61P027-02; A61P029-00; A61P035-00; A61P037-02; A61P037-08; A61P043-00
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 63
ST ether fluoroprostaglandin prepn treatment glaucoma intraocular hypertension
IT Antiglaucoma agents
Glaucoma (disease)
(preparation of ethers of difluoroprostaglandins or their salts for treatment of glaucoma and intraocular hypertension)
IT 352202-79-0P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of ethers of difluoroprostaglandins or their salts for treatment of glaucoma and intraocular hypertension)
IT 352203-30-6P 463936-18-7P 463936-19-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)
(preparation of ethers of difluoroprostaglandins or their salts for treatment of glaucoma and intraocular hypertension)

IT 75-30-9, 2-Iodopropane 17814-85-6, 4-Carboxybutyltriphenylphosphonium bromide 39746-01-5 40665-68-7, Dimethyl 2-oxo-3-phenoxypropylphosphonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of ethers of difluoroprostaglandins or their salts for treatment of glaucoma and intraocular hypertension)

IT 51638-91-6P 209860-87-7P 209861-00-7P 209861-01-8P 209861-02-9P 463936-20-1P 463936-21-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ethers of difluoroprostaglandins or their salts for treatment of glaucoma and intraocular hypertension)

L30 ANSWER 2 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 130:81347 MARPAT
TITLE: Prostaglandin pharmaceutical compositions
INVENTOR(S): Del Soldato, Piero
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9858910	A1	19981230	WO 1998-EP3645	19980617
W: AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9884386	A1	19990104	AU 1998-84386	19980617
AU 740683	B2	20011108		
EP 989972	A1	20000405	EP 1998-934967	19980617
EP 989972	B1	20021009		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO				
BR 9810163	A	20000808	BR 1998-10163	19980617
JP 2002506440	T2	20020226	JP 1999-503738	19980617
AT 225771	E	20021015	AT 1998-934967	19980617
PT 989972	T	20030228	PT 1998-934967	19980617
ES 2185188	T3	20030416	ES 1998-934967	19980617
US 6211233	B1	20010403	US 1999-423286	19991108
PRIORITY APPLN. INFO.:			IT 1997-MI1440	19970619
			WO 1998-EP3645	19980617

AB Compds. of the general formula A-X-NO2, or their pharmaceutical compns., wherein A contains a prostaglandin residue, X is a bivalent connecting bridge were prepared for treatment of impotence. Thus, PGE1 was treated with p-toluenesulfonyl chloride in acetone containing Et3N and then 2-nitroethanol to give the 2-nitroethyl ester of prostaglandin E1 (I). I

inhibited adrenalin-induced contraction on human cavernous artery at 10-6M by 71.6%. I increased the erection observed in rats by 92% after 30 mins.

IC ICM C07C405-00
ICS A61K031-557

CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 63

ST prostaglandin E1 nitroethyl ester prepn impotence

IT Sexual behavior
(impotence; prostaglandin pharmaceutical compns.)

IT 218916-49-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostaglandin pharmaceutical compns.)

IT 745-65-3, PGE1
RL: RCT (Reactant); RACT (Reactant or reagent)
(prostaglandin pharmaceutical compns.)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 3 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 129:166072 MARPAT
TITLE: Prostaglandins for enhancing hair growth
INVENTOR(S): Johnstone, Murray A.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9833497	A1	19980806	WO 1998-US2289	19980203
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2279967	AA	19980806	CA 1998-2279967	19980203
AU 9862709	A1	19980825	AU 1998-62709	19980203
AU 750039	B2	20020711		
EP 1021179	A1	20000726	EP 1998-904968	19980203
EP 1021179	B1	20040512		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001511155	T2	20010807	JP 1998-533248	19980203
AT 266397	E	20040515	AT 1998-904968	19980203
US 6262105	B1	20010717	US 1999-366656	19990803
PRIORITY APPLN. INFO.:			US 1997-37237P	19970204
			WO 1998-US2289	19980203

AB Methods and compns. for stimulating the growth of hair are disclosed

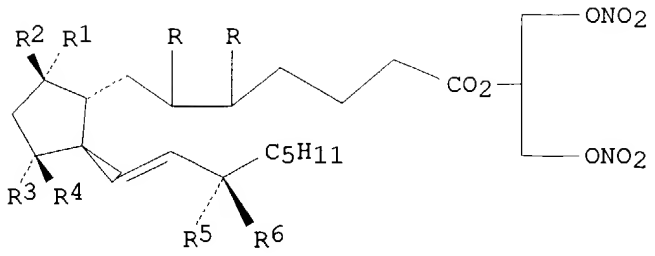
containing prostaglandins, derivs. or analogs thereof for use in treating the skin or scalp of a human or non-human animal. Prostaglandins of the A2, F2α and E2 types are preferred for this treatment method. A topical cream containing 13,14-dihydro-15-dehydro-17-phenyl-18,19,20-trinor-PGF2α iso-Pr ester was formulated and applied to a bald human scalp 3 times a day to stimulate the growth of hair.

IC ICM A61K031-215
CC 62-3 (Essential Oils and Cosmetics)
ST hair growth stimulant prostaglandin
IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(A; prostaglandins for enhancing hair growth)
IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(E; prostaglandins for enhancing hair growth)
IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(F; prostaglandins for enhancing hair growth)
IT Hair preparations
(growth stimulants; prostaglandins for enhancing hair growth)
IT 135646-98-9
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(prostaglandins for enhancing hair growth)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 127:5308 MARPAT
TITLE: Preparation of dinitroglycerol esters of unsaturated fatty acids and prostaglandins as antihypertensive cardiovascular and platelet anti-aggregating agents
INVENTOR(S): Bezuglov, Vladimir V.; Serkov, Igor V.
PATENT ASSIGNEE(S): Russia
SOURCE: U.S., 13 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5625083	A	19970429	US 1995-458282	19950602

PRIORITY APPLN. INFO.: US 1995-458282 19950602
GI



I

AB Dinitroglycerol esters of fatty acids, hydroxy fatty acids, and prostaglandins, I (R = H; RR = bond; R1,R2 = H, OH, oxo, hydroxyimino; R3,R4 = oxo, hydroxyimino; R5,R6 = H, OH, F) were prepared as antihypertensive cardiovascular and platelet antiaggregating agents. Dinitroglycerol esters provided by this invention have an improved biol. specificity and/or a greater specific activity than the parent compound The novel prostanoids produced herein may be used as vasodilators, antihypertensive cardiovascular agents, bronchodilators, and they may have uses in obstetrics and gynecol. The dinitroglycerol esters of fatty acids and hydroxy fatty acids may be useful as platelet anti-aggregating agents. Thus, dinitroglycerol ester of prostaglandin E1 was prepared as inhibitor of ADP-induced aggregation of human platelets (IC50 = 0.19 x 10-6 M).

IC ICM C07C405-00

NCL 549467000

CC 33-6 (Carbohydrates)
Section cross-reference(s): 1, 14, 15, 26, 63

ST nitroglycerolipid ester prostaglandin prepn antihypertensive; platelet antiaggregating prostanoid prepn; prostanoid prepn vasodilator antihypertensive cardiovascular bronchodilator

IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dinitroglycerolipid esters; preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)

IT Lipids, preparation
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(glycerolipids, dinitro-, prostaglandin-containing; preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)

IT Antihypertensives
Bronchodilators
Cardiovascular agents
Platelet aggregation inhibitors
(preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)

IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostanoids, dinitroglycerolipid esters; preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)

IT 189940-81-6P 189940-83-8P 189940-85-0P 189940-87-2P 189940-94-1P 189941-20-6P 189941-21-7P 189941-27-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)

IT 189940-89-4P 189940-91-8P 189940-93-0P 189940-96-3P 189940-98-5P 189941-00-2P 189941-02-4P 189941-04-6P 189941-06-8P 189941-08-0P 189941-10-4P 189941-12-6P 189941-14-8P 189941-16-0P 189941-18-2P 189941-22-8P 189941-23-9P 189941-24-0P 189941-25-1P 189941-26-2P 189941-28-4P 190202-01-8P, Prostaglandin J1 1,3-dinitroglycerol ester
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)

IT 363-24-6, Prostaglandin E2 530-62-1 623-87-0 745-65-3, Prostaglandin E1 13345-50-1, Prostaglandin A2 51010-74-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of dinitroglycerol esters of unsatd. fatty acids and prostaglandins as antihypertensive cardiovascular and platelet antiaggregating agents)

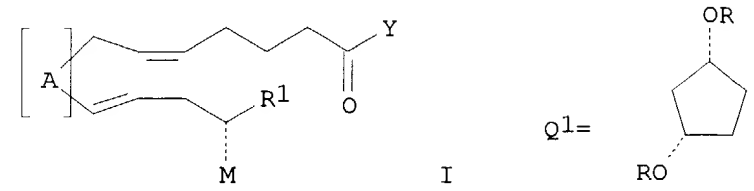
L30 ANSWER 5 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 122:187237 MARPAT
TITLE: Preparation of prostaglandin derivatives for treating osteoporosis
INVENTOR(S): Tyler, Peter C.; Young, Robert N.; Rodan, Gideon A.; Ruel, Rejean
PATENT ASSIGNEE(S): Merck and Co., Inc., USA; Merck Frosst Canada Inc.
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9406750	A1	19940331	WO 1993-US8529	19930909
W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5409911	A	19950425	US 1992-944149	19920911
EP 662075	A1	19950712	EP 1993-921469	19930909
EP 662075	B1	20011212		

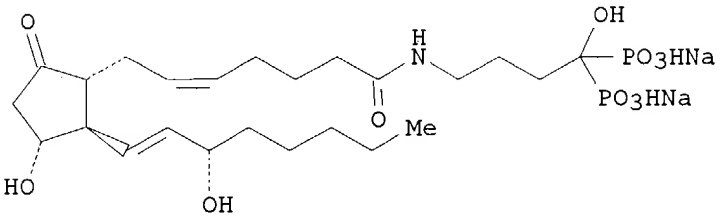
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE

JP 08501546	T2	19960220	JP 1993-508175	19930909
AU 677597	B2	19970501	AU 1993-48554	19930909
AU 9348554	A1	19940412		
AT 210643	E	20011215	AT 1993-921469	19930909
ES 2169046	T3	20020701	ES 1993-921469	19930909
PRIORITY APPLN. INFO.:			US 1992-944149	19920911
			WO 1993-US8529	19930909

GI



I



II

AB The title compds. I [A = Q1, etc.; R = H, SiMe2Bu-tert, etc.; R1 = H, alkyl; M = OH, OC1-6alkyl, etc.; Y = NH(CH2)nC(OH)(PO3H2)2, etc.; a proviso is given; n = 0 - 10] are prepared Prostaglandin derivative II was prepared from prostaglandin E2. Radioactive II (tritiated and 14C-labeled) was also prepared for biol. testing. In a test on the effect of radioactive II on bone resorption estimated by urinary excretion of lysylpyridinoline in the rat, animals treated with radioactive II had significantly lower levels of lysylpyridinoline after a 12 day period compared to vehicle alone.

IC ICM C07C177-00
ICS C07F009-38; A61K031-557; A61K031-65
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1
ST prostaglandin prepn osteoporosis
IT Prostaglandins
RL: MSC (Miscellaneous)
(derivs., preparation, for treating osteoporosis)
IT Osteoporosis
(prostaglandin derivs. effect on)
IT 161479-52-3P 161479-53-4P 161479-54-5P 161479-55-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of prostaglandin derivs. for treatment of osteoporosis)
IT 109-80-8, 1,3-Propanedithiol 334-88-3, Diazomethane 363-24-6,

Prostaglandin E2 6066-82-6 57078-98-5 76497-39-7 134606-40-9 161479-56-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of prostaglandin derivs. for treatment of osteoporosis)

IT 31753-17-0P, Prostaglandin E2 methyl ester 80307-12-6P 161479-57-8P 161479-58-9P 161479-59-0P 161479-60-3P 161479-61-4P 161479-62-5P 161479-63-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of prostaglandin derivs. for treatment of osteoporosis)

IT 13345-50-1P 31753-19-2P 161479-64-7P 161479-65-8P 161479-66-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of prostaglandin derivs. for treatment of osteoporosis)

L30 ANSWER 6 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 120:315840 MARPAT
TITLE: Nonacidic cyclopentane heptanoic acid 2-cycloalkyl or arylalkyl derivatives for smooth muscle relaxants and for treatment of glaucoma
INVENTOR(S): Woodward, David F.; Andrews, Steven W.; Burk, Robert M.; Garst, Michael E.
PATENT ASSIGNEE(S): Allergan, Inc., USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9406433	A1	19940331	WO 1993-US8472	19930909
W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5352708	A	19941004	US 1992-948056	19920921
EP 660716	A1	19950705	EP 1993-921435	19930909
EP 660716	B1	20011128		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08501310	T2	19960213	JP 1993-508155	19930909
AU 676492	B2	19970313	AU 1993-48526	19930909
AU 9348526	A1	19940412		
AT 209494	E	20011215	AT 1993-921435	19930909
ES 2166364	T3	20020416	ES 1993-921435	19930909
PT 660716	T	20020531	PT 1993-921435	19930909
CA 2144967	C	20031111	CA 1993-2144967	19930909
PRIORITY APPLN. INFO.:			US 1992-948056	19920921
			WO 1993-US8472	19930909

AB Cyclopentane heptanoic acid, 2-cycloalkyl or arylalkyl derivs., substituted in the 1-position with halo, Me, hydroxyl, nitro, amino, amido, azido, oxime, cyano, thiol, ether or thioether groups, e.g., a 1-OH cyclopentane heptanoic acid, 2-(cycloalkyl or arylalkyl) derivs, are disclosed (Markush included). The compds. of the invention are potent ocular hypotensives, and are particularly suitable for the management of

glaucoma. Moreover, the compds. of the invention are smooth muscle relaxants with broad application in systemic hypertensive and pulmonary diseases; smooth muscle relaxants with application in gastrointestinal disease, reproduction, fertility, incontinence, shock, etc. Preparation of selected compds. is described, as are radioligand binding studies, effect on intraocular pressure, effect on smooth muscle contraction, etc.

IC ICM A61K031-557

CC 1-12 (Pharmacology)
Section cross-reference(s): 24

ST cyclopentane heptanoate cycloalkl arylalkyl deriv glaucoma; smooth muscle relaxant cyclopentane heptanoate deriv

IT Allergy inhibitors
Cardiovascular agents
(nonacidic cyclopentane heptanoic acid cycloalkyl and arylalkyl derivs.)

IT Glaucoma (disease)
Shock
(treatment of, nonacidic cyclopentane heptanoic acid cycloalkyl and arylalkyl derivs. for)

IT Digestive tract
Reproductive tract
Respiratory tract
(disease, treatment of, nonacidic cyclopentane heptanoic acid cycloalkyl and arylalkyl derivs. for)

IT Muscle relaxants
(smooth, nonacidic cyclopentane heptanoic acid cycloalkyl and arylalkyl derivs.)

IT 56988-09-1 155205-88-2 155205-89-3 155205-90-6 155205-91-7
155205-92-8 155205-93-9 155205-94-0 155205-95-1 155205-96-2
155205-97-3 155205-98-4 155205-99-5 155206-00-1 155206-01-2
155206-02-3 155206-03-4
RL: BIOL (Biological study)
(for glaucoma treatment and smooth muscle relaxant)

IT 38315-47-8P 56687-85-5P 155205-89-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in nonacidic cyclopentane heptanoic acid cycloalkyl/arylalkyl derivative preparation)

IT 155205-88-2P 155205-90-6P 155205-92-8P 155205-95-1P 155206-05-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for nonacidic cyclopentane heptanoic acid cycloalkyl/arylalkyl derivative preparation for glaucoma treatment or smooth
muscle relaxant)

IT 38344-08-0 54276-21-0 155206-04-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in nonacidic cyclopentane heptanoic acid cycloalkyl/arylalkyl derivative preparation)

IT 155206-02-3 155206-06-7
RL: BIOL (Biological study)
(receptor binding competition with, nonacidic cyclopentane heptanoic acid cycloalkyl and arylalkyl derivs. for glaucoma treatment or smooth muscle relaxant in relation to)

IT 551-11-1 33854-16-9 38344-08-0 64775-47-9 64775-48-0 67508-08-1
68192-10-9 96752-55-5 155206-07-8 155206-08-9 155206-09-0
155206-10-3 155206-12-5 155322-19-3 155322-20-6

RL: PRP (Properties)
(smooth muscle stimulant property of)
IT 155206-11-4
RL: BIOL (Biological study)
(vasorelaxation response with)

L30 ANSWER 7 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 120:293604 MARPAT
TITLE: Isoprostane-protein conjugates for EIA
INVENTOR(S): Maxey, Kirk M.; Kan, Waiming
PATENT ASSIGNEE(S): Cayman Chemical Co., USA
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9404921	A1	19940303	WO 1993-US7630	19930811
W: AU, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9350099	A1	19940315	AU 1993-50099	19930811
PRIORITY APPLN. INFO.:			US 1992-928484	19920811
			WO 1993-US7630	19930811

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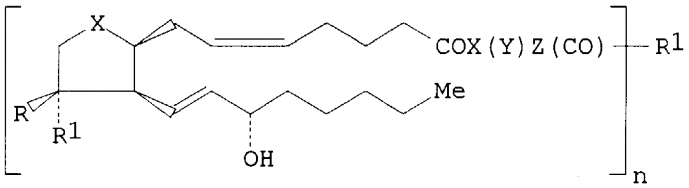

I, X=CH···OH, R=H, R^1=OH

II, X=CO, R=H, R^1=OH

III, X=CH_2CH···OH, R=H, R^1=OH

IV, X=CH◄OH, R=OH, R^1=H

AB Isoprostane-protein conjugates I, II, III, and IV [X = O, NH, N, CH2, S, or NHCO; W = single or double covalent bond, C1-12 (branched) alkyl, C3-C10 cycloalkyl, Ph, CO(CH2)CO, Q (m = 0-10; P1 = S, NH, O), bisdiazobenzidine; Z = W, NH, N, S, CO, O; Y = Z (m = 1-10 for Q); R1 = acetylcholinesterase, peroxidase, alkaline phosphatase, thyroglobulins, etc.;
n = 1-100] are provided. By virtue of their antigenicity and their ability to act as tracer mols. in EIA procedures, they present important new diagnostic agents that permit the measurement of isoprostanes in biol. samples. Preparation of an isoprostane-acetylcholinesterase conjugate for the

anal. of isoprostane F2α is described (no data).
IC ICM G01N033-53
ICS C07K017-00; C08H001-00
CC 9-14 (Biochemical Methods)
ST isoprostane protein conjugate prepn; biol sample isoprostane immunoassay
IT Prostaglandins
RL: ANST (Analytical study)
(isoprostane, conjugates with proteins, for isoprostane determination in biol.
sample)
IT Antibodies
RL: ANST (Analytical study)
(to isoprostane, isoprostane determination in biol. sample with, isoprostane-protein conjugate in)
IT Hemocyanins
Thyroglobulins
RL: ANST (Analytical study)
(conjugates, with isoprostanes, for isoprostane determination in biol. sample)
IT Enzymes
Proteins, specific or class
RL: ANST (Analytical study)
(conjugates, with isoprostanes, for isoprostane immunoassay in biol. sample)
IT Albumins, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(conjugates, with isoprostanes, preparation of, for isoprostane determination in
biol. sample)
IT 9000-81-1D, Acetylcholinesterase, isoprostane conjugates 9001-37-0D, Glucose oxidase, isoprostane conjugates 9001-40-5D, isoprostane conjugates 9001-78-9D, Alkaline phosphatase, isoprostane conjugates 9002-13-5D, Urease, isoprostane conjugates 9003-99-0D, Peroxidase, isoprostane conjugates 9031-11-2D, β-Galactosidase, isoprostane conjugates 9073-60-3D, Penicillinase, isoprostane conjugates 27415-25-4D, protein conjugates 27415-26-5D, protein conjugates 154968-86-2D, protein conjugates 154968-87-3D, protein conjugates
RL: ANST (Analytical study)
(for isoprostane immunoassay in biol. sample)

L30 ANSWER 8 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 120:134137 MARPAT
TITLE: Preparation of polar esters of prostaglandins for the treatment of glaucoma
INVENTOR(S): Woodward, David F.; Chan, Ming Fai
PATENT ASSIGNEE(S): Allergan, Inc., USA
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9314743	A2	19930805	WO 1993-US876	19930201

WO 9314743 A3 19940106
W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, RO, RU, SD, SE
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG
US 5288754 A 19940222 US 1992-831023 19920204
AU 9336031 A1 19930901 AU 1993-36031 19930201
PRIORITY APPLN. INFO.: US 1992-831023 19920204
WO 1993-US876 19930201

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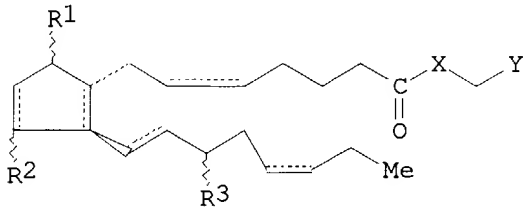

I

AB The title compds. I [wavy line attachments indicate either α or β configuration; dashed bonds = single bond or double bond which can be in the cis or trans configuration; X = O, NH, S, etc.; Y = polar functional group; one of R1 and R2 is oxo, OH, or O(CO)T, and the other is OH or O(CO)T, or R1 is oxo and R2 is H; R3 = OH, O(CO)T; T = saturated or unsatd. acyclic hydrocarbon group, (CH2)nR; n = 0-10; R = aliphatic, aromatic, or heteroarom. ring], useful for the treatment of glaucoma, were prepared A mixture of prostaglandin F2a, 2-iodoethanol, and diisopropylethylamine in DMF was heated at 70° for 3h to give 67% prostaglandin F 1-(2-hydroxy)ethyl ester (II). At a 0.1% concentration, the ocular hypotensive activity of II is equal to that of the known prostaglandin F2α iso-Pr ester in rabbits.

IC ICM A61K009-00
ICS A61K031-557

CC 26-3 (Biomolecules and Their Synthetic Analogs)

ST prostaglandin F ester prepn glaucoma

IT Glaucoma (disease)
(treatment of, prostaglandin F2α esters for)

IT 144-48-9, Iodoacetamide 624-76-0, 2-Iodoethanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification by, of prostaglandin)

IT 551-11-1, Prostaglandin F2α
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of)

IT 152933-23-8P 152933-24-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for treatment of glaucoma)

L30 ANSWER 9 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 118:124292 MARPAT

TITLE: Preparation of ocular hypotensive 2-decarboxyl-2-acylthioalkyl prostaglandin derivatives
INVENTOR(S): Chan, Ming Fai
PATENT ASSIGNEE(S): Allergan, Inc., USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9220648	A1	19921126	WO 1992-US3969	19920513
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, PL, RO, RU, SD				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG				
US 5312832	A	19940517	US 1991-702220	19910517
CA 2102295	AA	19921118	CA 1992-2102295	19920513
AU 9220066	A1	19921230	AU 1992-20066	19920513
AU 653240	B2	19940922		
EP 585380	A1	19940309	EP 1992-913037	19920513
EP 585380	B1	19951122		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
HU 65913	A2	19940728	HU 1993-3242	19920513
JP 06507897	T2	19940908	JP 1992-500151	19920513
AT 130603	E	19951215	AT 1992-913037	19920513
ES 2079872	T3	19960116	ES 1992-913037	19920513

PRIORITY APPLN. INFO.: US 1991-702220 19910517
WO 1992-US3969 19920513

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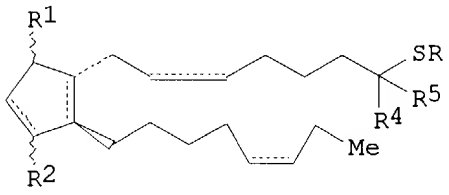

I

AB Title compds. [I; R = acyl; one of R1, R2 = :O, OH, O2CR6, the other = OH, O2CR.cxa., or R1 = O, R2 = H; R3 = OH, O2CR6; one of R4, R5 = H, the other = H, alkyl; R6 = (unsatd.) acyclic hydrocarbyl, (CH2)nR7; n = 0-10; R7 = aliphatic ring, aryl, heteroaryl; dotted lines = optional double bonds], were prepared Thus, PGF2α Me ester was stirred with dihydropyran and pyridinium tosylate in CH2Cl2 to give the 9,11,15-tris(tetrahydropyranyl) ether. This was reduced with diisobutylaluminum hydride in CH2Cl2 at -78 to 0° to give 2-decarboxyl-2-hydroxymethyl PGF2α 9,11,15-tris(tetrahydropyranyl) ether. This was stirred with Et3N and MeSO2Cl in CH2Cl2 to give the 2-mesylate, which was stirred with K thioacetate in DMF to give, after deprotection with pyridinium tosylate,

2-decarboxyl-2-acetylthiomethylprostaglandin PGF2α. The latter at 0.1% in an ophthalmic formulation gave a maximum intraocular pressure reduction of 6.7 mmHg.

IC ICM C07C405-00
ICA A61K031-557
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 63
ST acylthioalkylprostaglandin prepn glaucoma treatment; prostaglandin PGF2α acylthioalkyl antiglaucoma
IT Glaucoma (disease)
(treatment of, decarboxyl acylthioalkyl prostaglandins)
IT 62092-36-8P 62092-37-9P 146017-31-4P 146017-32-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for antiglaucoma drug)
IT 146017-30-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for treatment of glaucoma)
IT 33854-16-9, PGF2α methyl ester
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of antiglaucoma drug)

L30 ANSWER 10 OF 10 MARPAT COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 117:227085 MARPAT
TITLE: Inhibition of IgE production with prostaglandins
INVENTOR(S): Levine, Alan David; Collins, Paul Waddell
PATENT ASSIGNEE(S): Monsanto Co., USA; G.D. Searle and Co.
SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 494063	A2	19920708	EP 1991-870214	19911220
EP 494063	A3	19920916		
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE				
US 5157052	A	19921020	US 1990-635000	19901227
CA 2058457	AA	19920628	CA 1991-2058457	19911224
AU 9190035	A1	19920702	AU 1991-90035	19911224
AU 643104	B2	19931104		
JP 05221865	A2	19930831	JP 1991-345103	19911226
ZA 9110170	A	19930506	ZA 1991-10170	19911227
US 5218139	A	19930608	US 1992-892870	19920603
PRIORITY APPLN. INFO.:			US 1990-635000	19901227

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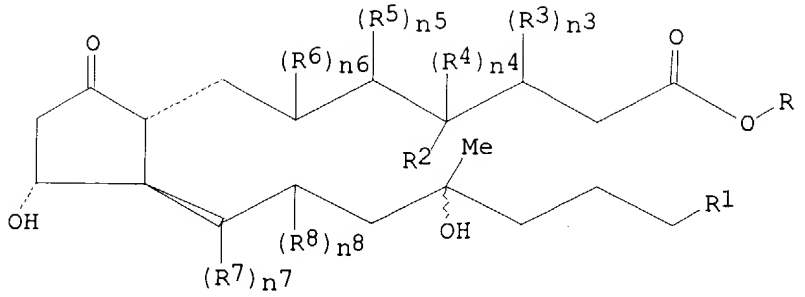

I

AB IgE formation is inhibited in humans by administration of prostaglandins I [R = H, C1-5 alkyl, C3-8 cycloalkyl, (un)substituted Ph; R1, R2 = H, C1-5 alkyl; n3-n8 = 0, 1; when n's = 0, R3R4, R4R5, R5R6, or R7R8 = double bond; when n's = 1, R3, R5-R8 = H and R4 = H, Me, or R3R4, R4R5, or R5R6 = CH2]. I are useful for treatment of allergies and asthma. Thus, mice were preinjected with antibody FF1-4D5 (a mouse IgG2a monoclonal antibody that binds the Fd fragment of the δ chain of IgD a allotype) and antibody HδA1 (a mouse IgG2b monoclonal antibody that binds the Fc fragment of the δ chain of IgD a allotype) to induce a transient IgE response and then treated i.p. with (±)-Me 11α,16-dihydroxy-16-methyl-9-oxoprosta-5Z,13E-dien-1-oate (II). II dose-dependently decreased the serum IgE levels of the treated mice, e.g. by 62% at 2 μg; a dose of 20-40 μg was sufficient to keep IgE production at normal levels. (±)-Me 2-[2-[(3R)-3α-hydroxy-2β-(4-hydroxy-4-methyl-1E-octenyl)-5-oxo-1α-cyclopentyl]ethyl]cyclopropanepropanoate was prepared from cis-5-(3-cis-heptenyl)-3-hydroxycyclopent-4-en-1-one by tert-butyldimethylsilylation, reaction with Et2Zn and CH2I2 to convert the heptenyl double bond to a cyclopropylene group, etc.

IC ICM A61K031-557

CC 2-9 (Mammalian Hormones)
Section cross-reference(s): 1, 26

ST IgE formation inhibition prostaglandin; allergy inhibitor prostaglandin

IT Prostaglandins
RL: BIOL (Biological study)
(IgE formation inhibition by)

IT Allergy inhibitors
(prostaglandins)

IT Immunoglobulins
RL: FORM (Formation, nonpreparative)
(E, formation of, prostaglandins inhibition of)

IT 59122-46-2 92999-99-0 112137-89-0 112244-30-1 144286-57-7 144286-58-8 144286-69-1 144286-70-4 144286-71-5 144371-54-0 145190-75-6
RL: BIOL (Biological study)
(IgE formation inhibition by)

IT 54594-85-3 78908-10-8
RL: BIOL (Biological study)
(butyldimethylsilylation of)

IT 144286-67-9P
RL: PREP (Preparation)
(preparation and conversion to prostaglandin derivative)

IT 144286-66-8P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenation of)

IT 144286-63-5P 144286-65-7P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

IT 144286-64-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with carboethoxymethylene triphenylphosphorane)

IT 144286-60-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with diethylzinc and methylene iodide)

IT 144286-59-9P 144286-62-4P
RL: PREP (Preparation)
(preparation of and IgE formation inhibition by)

IT 144286-61-3P
RL: PREP (Preparation)
(preparation of, in prostaglandin derivative preparation)

IT 144286-68-0
RL: BIOL (Biological study)
(prostaglandin derivative preparation from)

IT 75-11-6, Methylene iodide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in cyclopropane derivative preparation)

IT 1099-45-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aldehyde)

IT 20210-14-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyclohexylisobutanimine)

IT 2471-15-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with lithium diethylamide and hexamethylphorphoric triamide and ketobromohexane ethylene ketal)

IT 18162-48-6, tert-Butyldimethylchlorosilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation by, of cyclopentenolone derivative)

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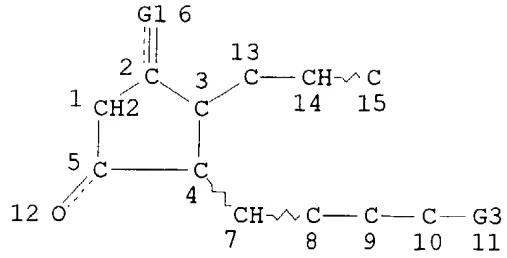

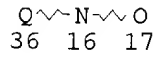

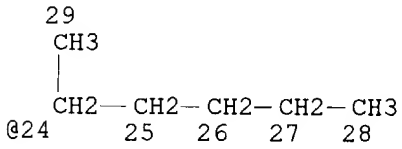

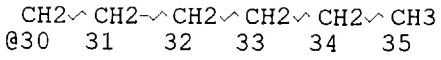

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NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:
ECLEVEL IS LIM ON ALL NODES
ALL RING(S) ARE ISOLATED

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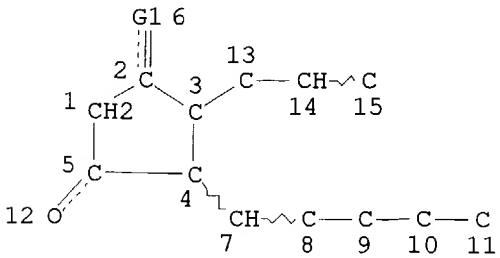

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DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE
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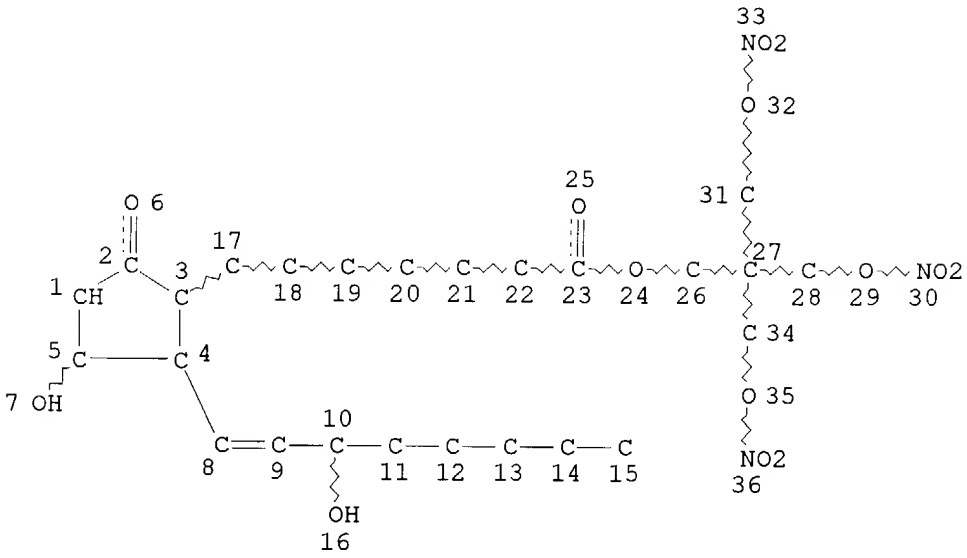

species

NODE ATTRIBUTES:
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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 36

STEREO ATTRIBUTES: NONE
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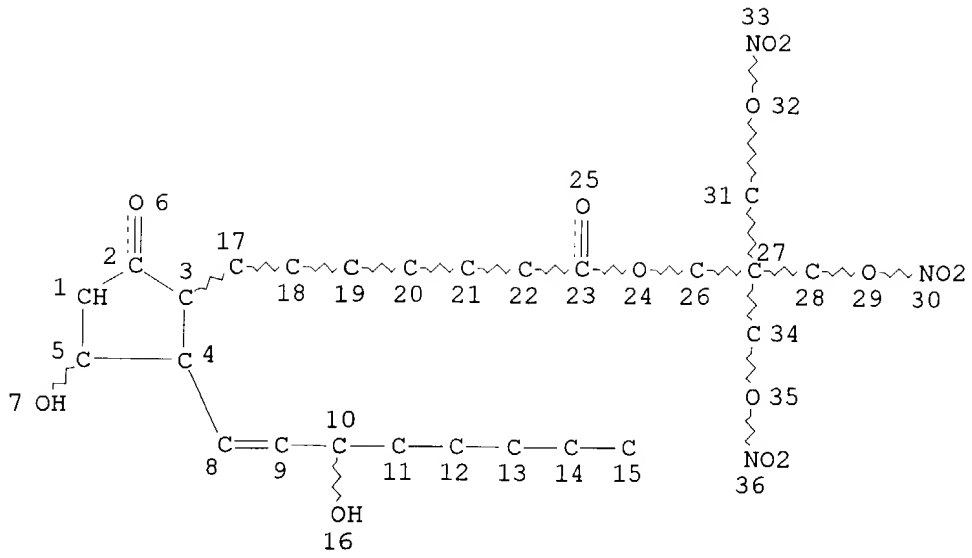

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 36

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:
ECLEVEL IS LIM ON ALL NODES
ALL RING(S) ARE ISOLATED

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